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                           UNITED STATES BANKRUPTCY COURT
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                    FOR THE WESTERN DISTRICT OF NORTH CAROLINA
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                                 CHARLOTTE DIVISION
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         IN RE:
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         GARLOCK SEALING TECHNOLOGIES )
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         LLC, et al,
                                             No. 10-BK-31607
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               Debtors.
                                             VOLUME IB - AFTERNOON SESSION
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                           TRANSCRIPT OF ESTIMATION TRIAL
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                       BEFORE THE HONORABLE GEORGE R. HODGES
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                           UNITED STATES BANKRUPTCY JUDGE
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                                   JULY 22, 2013
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MONDAY AFTERNOON, JULY 22, 2013

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2 (Court called to order at 1:35 p.m.)

THE COURT: Okay. Mr. Swett, I believe it's your

MR. SWETT: Thank you, Your Honor.

May it please the court, Trevor Swett for the Official Committee of Asbestos Personal Injury Claimants.

We are here in this proceeding to estimate in the aggregate the impact upon Garlock and tort creditors of Garlock's role in a public health disaster that has spanned a couple of generations now and will extend for decades into the future.

Millions of workers and families have been exposed to insidious toxic fibers. The products from which those fibers emanated were pervasive in the American workplace in a wide variety of industries and industrial settings. The products themselves were myriad and various. And many, many different companies were involved in their production, their dissemination, their installation, and sometimes their removal.

The sentinel disease caused by asbestos, meaning a disease which if it occurs, you've got to infer that there was asbestos exposure because asbestos is the only known confirmed cause of it, is mesothelioma, a devastating cancer of the lining of the peritoneum and the abdomen which leads

invariably to a painful death as those membranes, in effect, calcify, become cancerous and constrict the lung function of the person.

This has claimed many victims and will claim many more. Thousands have died. Thousands more will sicken and die on into the coming decades.

It's necessary at the beginning to clear out a little underbrush sewn by the debtors' opening statement. This case isn't about the non-malignance, but we don't for a minute concede that the wave of non-malignant claims that peaked in the early 2000s well before Judge Jack's vaunted decision in a silica case was illegitimate or fits the picture painted by the debtors in retrospect as manufactured claims for money that had no basis in law.

By and large, those claims were compensable under applicable non-bankruptcy law. If we were to wade into the disputes surrounding those claims, we would be getting into issues that have nothing to do with mesothelioma, which is the focus of this estimation under your order. So we decline to do that, but I don't want you for a minute to suppose that we concede Garlock's highly colored characterization of that phenomenon.

Instead, we focus on the legal consequences in the shape of the mesothelioma claims giving rise to lawsuits going back to the 1960s. Many companies were drawn in and held

responsible for contributing to the epidemic. The essential legal claims as the system evolved were negligence and strict liability for failure to warn despite known perils, proof of early knowledge, and the nature, the demographic, the human side of the people who fell victim to this disease. Those two things, early knowledge and the nature of the victims, made strong claims on the jury's senses of justice leading to many awards in cases that were fully tried. A not inconsiderable number of awards that were very large and placed many defendants, including Garlock, at risk of punitive damages.

As a result, no fewer than 50 companies have gone bankrupt since the early 1980s when the first major asbestos bankruptcy, that of the principal leading manufacturer, accounting by Mr. Harris's telling of some 60 percent of the market share in most asbestos products, Johns-Manville declared bankruptcy.

Garlock has been a defendant in the tort suits almost from the beginning. Its litigation plight is not some arbitrary happenstance or accident of history, but results from its sale over the course of many decades of asbestos-containing gaskets and packing going back many, many, decades.

Now, it's interesting that the debtors chose to begin their opening by showing you a movie of somebody banging on insulation and watching the snow fall, especially when

later in the same argument the same counsel asserted that the asbestos fibers are invisible. But what he didn't tell you is that by and large asbestos installation was no more than 15 percent asbestos. The rest was other substances. That's not invariably true but largely so.

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By contrast, Garlock's gaskets, those that contained asbestos, were between 60 and 80 percent of asbestos in concentration. So the dust phenomenon surrounding insulation and the dust phenomenon surrounding gaskets is different but not in the way that the debtors said.

Garlock's products were widely used and distributed.

They were highly recognizable.

If I could have Mr. Walker show the first slide.

This is from Dr. Bates' report. He says, "In fact, Garlock's marketing department was so successful in its branding efforts that certain kinds of industrial gaskets were often called "Garlocks" in the same way that Kleenex or Jello are commonly used words in place of facial tissues or gelatin dessert."

And he continues, "As a consequence, beginning in the 1980s, Garlock was named in thousands of asbestos personal injury lawsuits each year."

The only thing he got wrong there is that if he meant to imply that the litigation against Garlock didn't begin until the 1980s, that's not correct. It was earlier

than that. But the point of the statement is Garlock's highly recognizable, conspicuously branded, pervasive products are among the easier ones for workers to identify decades later when things that were of no moment back in the workplace when they were doing their work take on significance in the litigation of the question of where their mesothelioma came from and what products and substances contributed at the time to the causation of the disease.

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Your Honor has heard all this in one way or another over the course of what might be jocularly described as a three-year opening statement from the various parties.

But now we come to the estimation itself.

Estimation is needed because to make a confirmable plan, we must first measure the entitlements of the creditors as they would exist if there were no bankruptcy. The argument has been made that that is contrafactual. But it's a requirement of the code because one thing bankruptcy is not supposed to be is a windfall for debtors. The mere filing of bankruptcy is not supposed to affect the value of claims.

I'm reminded of a Third Circuit case where the party interested in preserving equity argued that the bonds should be valued not at their face but at the lower levels that they traded down to as the debtor's financial distress became evident and as bankruptcy approached. And not surprisingly, the court rejected that argument and said that for purposes of

measuring the debtor's obligation before we get to whatever adjustments may be adopted through the consensual processes of bankruptcy, we have to measure the liability as it existed before the bankruptcy, outside of the bankruptcy court.

And here, of course, all parties are looking to a 524(g) plan. That's an imperative. It's absolutely necessary because so much of the disease and so much of the liability lies in the future. And because Congress says that before this debtor can emerge from the chapters, in effect, cleansed of its tort legacy, it must fund the trust on a basis that provides equality between present claimants and future ones and that is overall fair and equitable to the future claimants.

And so it's necessary to measure by way of estimation not the value or worth of any individual claim but the collective aggregate of those values. And it is not necessary to measure them individually and add them up in order to get to the aggregate. In fact, that, under the case law, is not the favored method. It has been recognized, for example, in the Federal-Mogul case that to do an estimation process unduly focused on individual claims is to risk violence to the due process rights of claimants who are not in the courtroom when the estimate is made and who do not participate in that process.

And one thing we must not forget in the course of

this aggregate estimation, that phrase is not something to which we merely pay lip service. It goes to the substance of what the court is undertaking to do. And it limits necessarily the appropriate focus that the court should have and it instills appropriate forbearance.

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When invited to stray into the nitty-gritty issues that might arise in an individual claim, to say who shot John; who's right, who's wrong; which substance is harmful and which isn't, would be to stray into the terrain of individual claim litigation. It is not suitable for aggregate estimation. It cannot be fairly litigated in this context. It can only be fairly litigated in a traditional tort suit with a real plaintiff and a real defendant and a real jury where the parties are both at risk of the decisions, the judgments to be made by juries in the traditional manner of our system of justice.

We deal here in something different. And when you are invited, they say, well, we're not asking you to resolve the merits of any of the scientific disputes, for example.

But then out of the other side of their mouths tell you that you should estimate low because of the scientific defenses.

They are, in effect, asking you to embrace their defenses on the merits, hold against the whole collectivity of claimants on those subjects and tamp down the estimate to their eventual prejudice when it comes to distributing the assets of the

estate. It is a promiscuous approach. It mixes apples and oranges. It is a convenient effort at obtaining a trapdoor out of the tort system so that the -- that these issues can somehow be litigated in the absence of the people who matter when it comes to the claimants' side of the issues. That would be neither fair nor constitutional.

And I emphasize, it's not a matter of lip service. We can't avoid the necessity to refrain from implicating the rights of individuals just by calling it aggregate estimation and proceeding willy-nilly to do what we would do to decide merits up or down in a way that is eventually going to be visited upon those individuals.

And so the appropriate focus here must not be on any selection of individual cases but on the aggregate. And you have framed the issue in your order as what would it cost to resolve the allowable claims or the claims eventually to be allowed because you have seen 502(c) of the code as the source of your authority to estimate.

And that is as it ought to be. No one here is saying that you should put value on claims that would not be paid if there were no bankruptcy. Our method of estimation and Dr. Rabinovitz's method of estimation gives Garlock full credit for the considerable extent to which it was able to dismiss claims in the tort system without payment when after the claim was fully developed, calling the plaintiff lawyer

and persuading them to withdraw the case because they didn't have product identification evidence linking their disease to Garlock.

They're fully entitled in the context of an aggregate estimation to take account of a reasoned, appropriate calculation of that dismissal rate and we give it to them. Something like 40 percent of the claims brought against them for mesothelioma in recent times have ultimately been dismissed without payment and we're not fudging that number.

should throw out thousands of claims because the questionnaire responses are not to the debtors' liking or do not display at the random moment when the questionnaire responses are sent in evidence of product identification that would get the plaintiff to a jury in the tort system. Why is that? Because the questionnaires are a snapshot. They're a snapshot and a random arbitrary moment unrelated to the pace of the litigation in the tort system where against the backdrop of a reality in which the debtor in prebankruptcy times and practices did not require most of the claims to be worked up at all before it would settle them.

And that's not to say they've just paid junk. They did require product identification evidence before settling.

But they did not do so in the arbitrary manner in which the

questionnaires, if taken as devices for excluding claims, would operate. Because the claimants in the bankruptcy haven't had discovery of Garlock. They haven't gone through the discovery workup that those few cases that would be on a trial track in the tort system would go through. They're not at the end of the process. And you can't draw rational inferences from a snapshot to what the movie will look like at the end. That's what they do as a device for tamping down their estimate by excluding thousands of claims.

But again, this is not the trial in abstentia of holders of claims of mesothelioma. Nor is it some notional summary judgment process, properly speaking, where you can dispose of the rights of people who aren't here by supposing that if and when called to respond to a summary judgment motion, they wouldn't be able to meet it after appropriate discovery.

Instead, the touchtone of relevancy in the estimation ought to be the impact on the aggregate value of any given fact or trend or proposition that the parties may advance. After all, we don't write on a clean slate in this proceeding. There have been 50 of these cases before. There are many 524(q) plans confirmed and in effect.

We also here are proceeding in a legal context where the supreme court teaches that the bankruptcy court must take the claims as they exist under applicable non-bankruptcy law,

a subject on which we have at least rhetorical agreement between and among the parties.

I thought I heard Mr. Clodfelter acknowledge as well that that premise implies that the claims are to be valued for the value that they would have under non-bankruptcy law and non-bankruptcy settings. And that's true. And that goes back again to the idea that bankruptcy isn't supposed to be a windfall or a device for the nonconsensual depreciation of the claims.

When we bring the supreme court learning to bear in an asbestos bankruptcy, as many courts have done, we learn that the focus has been on the debtor's own claims resolution, claims experience and resolution history. As well it might be that the essential resource for estimation, because those are the data that describe the reality of the claims, the reality of their values, and the reality of the debtor's financial plight.

And when we proceed through Dr. Peterson to put on an estimation in the usual way derived from the debtors' own actual history, bringing to bear appropriate judgments that can be vetted and debated and argued about and made the subject of findings by Your Honor, our expert comes forth with the preferred estimate of about \$1.2 billion as the amount it would take Garlock to resolve the claims, present and future, expressed in present value as of the petition date. And that

is exclusive of defense costs. They're not included.

And contrary to Mr. Cassada's suggestion, there is nothing shocking or out of line about that figure when you consider that between 2006 and 2010 alone, if you annualize the 2010 figure, Garlock paid no less than \$320 million for mesothelioma claims alone to resolve them and avoid trial.

The figure actually also includes the results of the trivial number of cases that were tried to verdict and resolved by judgment instead of settlement.

And the central fact of the estimation ought to be that there is overwhelming evidence of how Garlock, in fact, valued and disposed of mesothelioma claims in the tort system before bankruptcy. And that method was by consensual means. Either they persuaded the plaintiff to withdraw for lack of product ID evidence or adequate medicals, or they settled for payment all but a tiny handful of the rest.

And when you are asked to consider, for example, that Garlock won 92 percent of its cases, or whatever the first figure was, in the decade of the 1990s or 75 percent of the cases if you extend that period to the time of bankruptcy, you must see that against the backdrop of this widespread settlement program which overwhelmingly was Garlock's method of valuing and disposing of the claims. Because Garlock, like any intelligent, well managed defense effort, which this was, will settle the claims it perceives to be most dangerous.

Will avoid the risk of trial in those instances and will only suffer trial if it can't get a reasonable settlement demand, one that it recognizes as such in a case where its -- where the risks presented do not seem to be prohibitive. They will settle the good plaintiff's cases. The plaintiff's cases that are forced to trial by and large will be more debatable, more questionable, more fodder for the jury to determine.

And that's what gives rise to the win/loss percentages that are apparent in Garlock's verdict history. When 99.7 percent of the cases settle, as Mr. Guy said, you can bet that the cases that the debtors thought were of greatest risk to it are among the settled ones.

Now, the database and testimony will further show that the settlements break down, broadly speaking, into two categories. There are group settlements pursuant to protocols for resolving large numbers of cases based upon certain essential attributes without intensive development or litigation of more nitty-gritty details.

The evidence will show that Garlock from a very early stage entered into arrangements with a wide array of plaintiffs' law firms that account for the lion's share, far and away the lion's share of the resolutions, where Garlock was choosing to settle early because that's when you get the best price and that's when you cut off the ongoing defense costs, and that's when you best hedge your risk. That's the

style they approached settlement in most of the time.

A much smaller group of cases were developed as -for trial and were settled on the basis of developed records
and were negotiated individually or in small groups. That, of
course, is a much costlier process for plaintiffs as well as
for defendants. And it produces much higher settlement values
for successful claims if they are prepared and resolved in
this way.

And it is this last very small set of claims that is the focus of Garlock's attack on the standard approach to estimation that we take in line with precedent. And the precedence that we rely on include most recently the Bondex decision by Judge Fitzgerald in which she embraced the essential methodology that Dr. Peterson applied there as here and that Dr. Rabinovitz applies.

And I'm sorry to say that Mr. Cassada is misinformed about what it was that was litigated in Bondex. It is not the case that Bondex agreed to have the estimation made on the basis of its settlement information. It too filed a motion to exclude that kind of evidence under Rule 408. It too put on evidence that in its view chrysotile from the joint compound that was its product could not cause mesothelioma. And you've read the decision, I feel certain, and you have seen that Judge Fitzgerald ruled to the contrary based upon the record in that case.

Now, the significance for estimation of Garlock's resolution history, of course, goes beyond the valuation that you should apply to pending claims and extends into the future. Why is that? Because no one doubts that if you returned Garlock to the tort system today, tomorrow they would be resolving and valuing claims in the same way that they did before they filed, which is by and large by settlement, with vanishingly few trials now and until the end of the problem.

Indeed, a close reading of Garlock's own trial brief tells you that they recognized this reality because they predict that under their plan, which involves passing claims through for litigation under tort rules, most of them would settle. Very few would actually go to trial according to them. The difference is that on the way through the bankruptcy court, they would change the rules.

Mr. Clodfelter's presentation essentially admits this. It would change the way in which the claims are handled and litigated and it would tilt the table in favor of Garlock and the equity and against the claimants. I submit to you that is not a legitimate function of bankruptcy. At least outside of consensual processes accepted by the creditors. And it is certainly not the appropriate function of estimation.

But against the legal and factual background that we've gone over, why do the debtors insist on a platonic

notion of legal liability and a newly invented approach to estimation that they first trotted out in Bondex with the results that you've seen in the Bondex opinion? The essential premise of which is that no, no, no. So that you're not basically counting cost avoidance as liability, you've got to notionally try the cases and you've got to further assume that the trials are free of cost to Garlock. You have to invent a conceptual world in which there are no transactions costs. There are no defense costs. There are no considerations other than what the jury will eventually find by way of liability or not.

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Why would they do that when it is so contrafactual, to borrow their term.

And on that subject, I would like to show you what Tim O'Reilly, who ran Garrison up until 2003, ran the defense effort for Garlock, had to say on the subject of whether it would be a good idea to try to resolve all the claims by trial and verdict.

"Did you ever consider trying every case?

"Answer: Consider it, yes. And in early 1993 we -again, we, it was me, got aggressive and we did in very short
order in early 1993 four phase-one meso trials with Perry
Weitz on the other side and very quickly learned what
\$75 million of verdicts looked like on phase one.

"Cost of defense is another issue. And if you went

into most asbestos judges' chambers, said you're going to try 1 every case, you'd be crucified. You couldn't -- you could not 2 3 try every case. A, you couldn't afford it; B, the courts will not give you the time to do it; and C, it would be economic 4 suicide. So you could consider it, but it's not a viable 5 option. It's not a level playing field out there for a 6 7 defendant in asbestos cases at all. "Question: What -- what would happen if you had 8 tried all the cases? 9 10 "MR. CASSADA: Objection, calls for opinion. "THE WITNESS: No offense, sir, it's a silly 11 12 question. I just answered it. 13 "Question: What would happen? 14 "Answer: You couldn't do it. The judges would not give you ice time the trial -- to try the cases. You could 15 16 not physically. Second of all, you wouldn't have the trial 17 team to do it. And I had more trial teams at the end than any defendant in litigation. 18 19 "So, no, it's a question that is -- calls for a 20 ridiculous answer because you couldn't try it, nor would the 21 judges let you try it.

"Question: Was early 1993 the only time that you

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"MR. CASSADA: I'll object to the extent it calls for lawyer's mental impressions.

ever considered that strategy?

"Answer: Let's put it this way, we didn't try it again."

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MR. SWETT: A few points about that, Judge. He was talking about an experience that he had in 1993. That's the era when, according to the debtors, they were living in clover when it came to defending their cases. He talked about a phase one trial. Phase one trial in New York City at that time was one where to avoid prejudice to the defendants, to avoid all the knowledge evidence and other liability evidence, they would try the plaintiffs' injuries first. He tried it in four cases back to back, and the result was \$75 million in damages that would have been visited upon Garlock had the plaintiff succeeded in the liability trial to follow. They didn't have to do that because the resolution was as you would expect. The result was a course of dealing between Garlock and that law firm that persisted until the bankruptcy case all the way from 1993. It did not involve trial. It did not involve discovery. It was an administrative process.

And when you think about Mr. O'Reilly's testimony that the judges wouldn't let you do what Dr. Bates insists you must do in your mind, if not in the real world, consider that there are roughly 5,000 pending mesothelioma claims.

Supposing it were to take a week to try each one. That's 5,000 weeks. That's 100 judge years. Consider that, according to Dr. Bates, it costs Garlock \$400,000 on average

to try such a case. Trying 5,000 cases, that's \$2 billion.

Apply the same metrics to the stream of cases that will unfold over the decades to come and you can well see why Mr. Clodfelter said this was unsustainable. And that is the very insight that caused Manville to go into bankruptcy in 1992 -- I'm sorry, 1982. It was unsustainable then for the major manufacturer of asbestos products. And the notion that only trial can produce a fair valuation of the claims is contrary to all experience and common sense for Garlock as for all other asbestos defendants.

Indeed, let us suppose that we embraced Dr. Bates' assumptions that the decade of the 1990s would be a better period to measure Garlock's liability from because it avoids some things that the debtors say were distortions in the 2000s. Let us suppose further that we were going to extrapolate from Garlock's verdicts given their actual rate of success, which approaches 92 percent. Said differently, that the plaintiffs would win just over 8 percent of the cases. And substitute for Dr. Bates' assumptions only this: That instead of spreading the verdicts across 36 defendants, we're going to spread them in -- proportionately to how, in fact, Garlock actually paid pursuant to the verdicts.

The resulting liability approaches Dr. Peterson's estimate based on settlements. If you apply more realistic assumptions, it vastly exceeds Dr. Peterson's estimates.

Trial is not a realistic way to value the cases and if the debtors' best interests truly be known and the assumptions be reasonable, it is a vastly disadvantageous manner in which to put a number on the debtors' liability here.

But Dr. Bates justifies it not as a -- he acknowledges that it's not a realistic proposition. He says it's an analytical construct to allow you somehow to isolate out from an integrated settlement number, a dollar figure, how much was for liability and how much for cost avoidance.

But to speak truly of this platonic notion of legal liability that the debtor favors, you can't speak in terms of the debtors' side of the view of what implicit in the settlement dollar is liability expectation. The only way to determine the liability would be to actually try it pursuant to their concepts.

Instead, you have to look at it from both points of view. The parties have different motives and different incentives to settle. They both have their costs. They both have their risks. They both have their own respective risk tolerance, their own appetite for trial, their own time valuation of money. And you can't unbake that cake, to borrow the figure of speech used in the debtors' opening. There's no way realistically to do it. What they're asking you to do is to adopt debtor-friendly premises and bring that to bear on that impossible deconstruction of the integrated settlement

dollars to arrive at a predetermined collusion, predetermined conclusion calculated to salvage equity that does not exist on a more realistic set of assumptions.

And far from analytical constructs, the supreme court teaches us that when it comes to matters of valuation, and this is a species evaluation, markets are to be preferred over experts. There is no occasion to apply complex economic modeling to a phenomenon that has been apparent to the courts for more than 40 years. And it cannot produce an estimate that in comparison to analysis of the data that actually exists can be reliable.

I'm going to borrow here an analogy that my friend Mr. Finch suggested to me. Mr. Finch is one of the lawyers who we engaged as special counsel to litigate the science questions. I should say to present the claimants' side of the science issues which are not to be litigated or adjudicated. But he said to me, you know, if you wanted to predict what the league wide batting average in the national league would be over the next five seasons, you wouldn't have to bring in major league ball players to give you batting lessons.

By the same token, you don't have to know the ins and outs of the scientific defenses, much less form a view as to who's right and who's wrong in order to come to the conclusion that the cases would resolve in the manner that they would given those defenses and the answers to those

defenses. And undertaking to do anything more with the science in this case would inappropriately trench on the rights of the victims who are not here and would lead the court into an area where it lacks expertise and will not be given an adequate record to decide from.

You know, the debtors like to quote the Moeller case and the bucket in the ocean as though this were a rule of law. Hell, you can never prove causation from a gasket when there is insulation around. That is not the meaning of the case. The case was a decision on a particular record with particular experts voicing particular conclusions on particular facts and assumptions where particular standards were brought to bear. It cannot be generalized in the manner that they do. It does not purport to articulate a rule of law, and certainly not a nationwide one.

Now, in the face of all this, what is Garlock's rationale for the quixotic approach that it would suggest to estimation?

Well, they say until 2000 Garlock was doing just fine as a peripheral defendant, forgetting that in 1993 they declined to proceed to trial in four cases in New York City because they were already looking at \$75 million in damages. Let's ignore that risk, they said.

But in 2000 a whole bunch of entities that they call the top tier or the big dusties went into bankruptcy which

changed the game to Garlock's unfair disadvantage, is their position. They were no longer able to depend upon the defenses put forward by those previously more prominent defendants. Their settlement prices went up, but they say they should have returned to pre-2000 levels once trusts came online and began paying the claims.

But Dr. Bates will concede to you that there is no information out there in the world today, years after the trusts began playing claims, that suggests that the effect of the trusts coming back and paying fractional recoveries on what their predecessor defendants would have paid in the tort system will have any material downward pressure on the settlement values of solvent defendants.

His only basis for saying that is discovery taken from the Delaware Claims Facility in this case and we will show you through Dr. Peterson that that data does not mean what he says and cannot bear the significance he attributes to it.

But they say, well, since they should have -- the prices should have come down but they didn't, there must be fraud going on. There is dissembling. The plaintiffs are not being forthcoming about the products they encountered and their lawyers are engaging in strategic dissembling to unfairly target Garlock. So we should resort to an analytic method, an elaborate economic model instead of deriving an

estimate from the historic settlement data even with adjustments. It's not good enough for that, they say.

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Well, broadly speaking, here are the answers:

Far from being a unique, unprecedented situation in which Garlock or maybe a few other defendants along with it were isolated in the tort system by the bankruptcies of the early 2000s and put in a world of hurt because they were dragged to the center stage as targeted defendants, as lead defendants instead of merely peripheral ones, that's a false picture. This is a phenomenon that is the natural consequence of joint and several liability and even hybrid apportionment rules throughout the country, one of the fundamental premises historically of the tort laws.

And of the fact that the products that give rise to asbestos emissions in the workplace are so various and so numerous that no one could be expected to make the case against all at once, even if the case could be made were they ever devoted to it, to establish that product, that defendant as contributory to the disease.

Back when Manville's 60 percent market share asbestos manufacturer was an active litigant, why would a plaintiff expend time and resources chasing 30 other companies when they could gain satisfaction by their own measure of what just compensation would be by pursuing Manville or one or two others? They wouldn't do it. They, too, have prohibitive

costs that make litigation a burden and that impale the lawyers to adopt cost effective stategies within the limits of the law.

So instead of their being one bankruptcy wave in 2000, there have been a series of waves from the beginning of the problem beginning with Manville's bankruptcy. When Manville went out of the system, there was a human cry by the co-defendants, much like the one Garlock raises here. And it's worth pausing to consider what the co-defendants in Manville moved that bankruptcy court to do by way of relieving them from precisely the dilemma that Garlock is now complaining about.

A bunch of co-defendants banded together to make an application to the bankruptcy court. Garlock itself was one of the movants. This is in 1982. They wrote that the court should extend the automatic stay to the whole system, nationwide, all defendants because it would be fundamentally unfair to force them to mount their defenses and incur those costs and those disadvantages in Manville's absence. And they wrote in their application -- I'm reading from paragraph 15 of Exhibit B to our trial brief. It's plaintiff's statement under Southern District Civil Rule 3(g) in Support of Motion for Summary Judgment. And they wrote as follows:

"Manville due to its pre-eminent position in the asbestos industry is the principal defendant and the most

important party in virtually all of the asbestos lawsuits.

"Manville as miner, processer, manufacturer, and supplier enjoys the largest market share in the asbestos industry. Manville has been the principal contributor towards settlements and judgments in asbestos lawsuits and taken the lead position among the defendants in acting as custodian of documents, furnishing witnesses, and securing expert testimony for all defendants.

"Manville's counsel has been the chief spokesman for the defense, coordinating and presenting the evidence on behalf of all co-defendants and assuming the principal role in settlement negotiations.

"Manville is possessed of the expertise, documentary evidence and witnesses essential to the trial of the action."

Essentially, they were saying it's no fair
litigating these cases in Manville's absence. They were
complaining of being deprived of the comfort of flying under
the wing of the lead defendant, of availing themselves of a
free ride on that defendant's defense efforts and the costs
that it was absorbing and the settlements that it was paying
so the plaintiffs would have no incentive to come after the
other defendants.

And fundamentally, what Garlock is complaining about in this case is that it was deprived of that opportunity when the defendants who had become prominent years after Manville's

demise themselves were tapped out and went bankrupt.

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But that is not a problem that can be taxed to the plaintiffs. That is in the nature of the tort system, of litigation, of complex personal injury claims involving multiple products and players where each side has its burdens and each side has its incentives and each side has its lawyers whose focus is on their client's best interests within the limits of the rules.

We will offer the testimony of Paul Hanly. Paul Hanly was the national coordinating defense counsel for Turner & Newall. Next to Manville, perhaps, the largest asbestos defendant in terms of its product output in the world. But Turner & Newall, as he will tell you, managed to stay low on the screen for many years. Entering into settlement protocols. Not forcing itself into the lime light. Not forcing cases to trial. Depending upon the efforts of Manville, and then later the Asbestos Claims Facility, a defense consortium, and then later Owens Corning, an aggressive defendant to lead the charge, while itself keeping its head down.

And Mr. Hanly will explain that that intelligence, well thought through and effective claims management strategy is consistent with the way Garlock managed its problem until, because of the exhaustion of the other defendants, it was deprived of that opportunity and was itself now brought to the

center of the stage.

There is, of course, no going back to yesteryear.

The debtors have sometimes explained their proposal as aiming to get them back to the values of the 1990s. They themselves have painted a picture of the 1990s as vastly different in circumstance given the prevalence in the non-malignant claims to anything that exists out there in the world now. And yet, that's the environment they say you should replace -- put them back into by the magic of estimation.

But it happens naturally that when the prominent defendants, those who by accident of history or otherwise are at the center of the fight in a given stage. The plaintiffs focus their discovery efforts, their case building efforts, all of the investment in litigation that that takes on those select few; and then when they're gone, their mission of obtaining full compensation for their clients requires them to shift focus and to develop their cases against other defendants who, while their products may have contributed to the disease all along, were ones that it had never before been necessary to pursue in earnest. And now that necessity has arisen. And so they build their cases and they make break throughs the same way after years of trying and losing cases against Manville, they broke through against Manville.

One of the ways that they broke through is they developed means of demonstrating and persuading juries that

indeed it is a dangerous thing to scrape off a degraded gasket and a dangerous thing to cut gaskets.

I'd like to show a couple of pictures which were a revelation to me of what such a degraded gasket looks like.

That's asbestos fiber that you see there. It may be that the fibers when they get airborne are microscopic and contained in other dust that may be visible, but that's asbestos.

Let's see the next one.

And the next one.

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Now -- thank you. How about the science debates?

They're just that: They're debates. Garlock never settled a case without knowing its science defenses. No plaintiff's lawyer in his right mind ever settled a case with Garlock without knowing and appreciating the issues he would have to litigate to conclusion if he were to try the case. It is indeed baked into the settlement numbers. And Mr. Guy is right, that if they didn't have those defenses, they would be paying a lot higher dollars. Those are in the price already.

I should say that given that that is so, it's a mystery to us why the debtor has seen fit to pay no less than \$4 million to its science experts in this very proceeding to come and give the same opinions that they have given time and again in the tort system over the years. It's indeed a mystery because the issue is no different now than it was when

they tried their last case before bankruptcy or the case two years before that and on and on.

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These much litigated defenses cannot sensibly affect the aggregate estimate given that they are already accounted for in Garlock's actual resolution.

Dr. Bates told me in deposition that he doesn't place reliance on the low dose scientists. That he does -- he does work with the occupational exposures analysis that they showed you on the screen, but he doesn't get into whether or not chrysotile hurts you or low dose emissions can cause disease. He posits that in his notional trials, Garlock will put on its science defenses. The plaintiff will respond and the juries will decide. Indeed.

So it comes down to their suggestion that there's pervasive dissembling in the tort system. They haven't told you that they're not permitted to show those videos of people banging on insulation to the juries or that it matters from the standpoint of laying off responsibility in comparison to the gaskets what manufacturer happens to have made the insulation.

They haven't even suggested in today's argument, at least, that the plaintiffs themselves know who made that insulation or that it would matter whether they knew. Their lawyer experts will tell you that and we will have it out with them on those subjects on cross examination and through our

own witnesses.

But the fact of the matter is that Dr. Bates acknowledges, and here I'd like to show a slide, slide 7.

"Clearly the asbestos exposure of typical Garlock plaintiffs will come from many producers of asbestos products.

Plaintiffs, however, rarely know all of the hundreds of asbestos products with which they came into contact, much less the names of all the companies that manufactured or installed these products."

I think that's on pages 109 -- 189 and 190 of Dr. Bates' deposition.

The plaintiffs don't know. The insulation products don't come with their name on the insulation. When it's being torn out, you can't tell one from the other, by and large, or at least not everybody can. And it was 50 years ago.

Remember the latency period, the period of insidious cellular development of the cancer that mesothelioma typically takes, 20, 30, 40 years, even longer.

So the plaintiffs cannot be taxed with dissembling for the natural fact that they can't name all of the manufacturers who put in all of those many asbestos products in the large industrial settings where they did their jobs.

That's not typically how it's proven. It is instead proven through documents, through shipping records, through ship building records in the navy cases which figure prominently in

Garlock's experience; and importantly, in the libraries full of testimony taken in the past from workers who worked in the same sites that produced these claims in large numbers, testifying to what products were there, the conditions under which they were used, the conditions under which the dust was created, the trades and workmen who were exposed to the dust in their normal operations. All of that has been documented to a -- fairly well over the course of 30 years or more.

For example, those cases in New York City that they tried in phase one in 1993 most likely had to do with the Brooklyn Naval Yard where they made ships and periodically did tear out and refurbishing of the ships involving the removal of insulation and the removal and replacement of gaskets.

Every deposition ever taken in the Brooklyn naval yard asbestos litigation is available to all comers and is admitted in all cases that go to trial.

So Garlock can go to that repository. Can find the co-workers who identify the Pittsburgh Corning unit asbestos product in a given part of the Brooklyn Naval Yard or the Owens Corning/Kaylo in another part of it and talk about which trades were exposed as they did their work at the naval shipyard. And Garlock, in fact, did that. Garlock had no unfair disadvantage in the ferreting out, if it mattered, of what other products a given plaintiff was exposed to. They were on a level field with the plaintiff's lawyer.

And there isn't a thing in the world wrong with the plaintiff's lawyer who has to get a dying mesothelioma victim to trial in his lifetime on an exigent docket from focusing first on those defendants who can pay. There is not written anywhere, except in Ohio by defendant lobbying this year or last, where it is the law that you must make your trust claims before you can proceed against the solvent defendants. That is not the general law. It is not in the plaintiff's interest to do that.

The defendants have their own means of developing the exposure if they want to invest their resources in that way. And they have no just complaint that now the plaintiff has to focus on the solvent defendants who can pay. The plaintiff's lawyer is not shaking his efforts to serve Garlock's interest in ferreting out other exposures. Of course they should disclose what they find and intend to use in lawsuits. No one would contend otherwise. But that's not the same as saying that Garlock is entitled to conscript the plaintiff's lawyers to develop evidence not necessary for the plaintiff's affirmative case to -- to serve the purposes of Garlock's defense.

And by the way, the onset of trusts hasn't made it harder for Garlock. It has made it easier. You don't get settlement information from solvent defendants. Georgia Pacific won't tell Garlock what it paid to settle a given

case. But the trusts publish their scheduled values and their payment percentages.

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So when you're a Garlock lawyer and you sit down to negotiate a settlement with Perry Weitz or Peter Kraus or any of these other lawyers and you know the site where the plaintiff worked and you know through your own research the kinds of products that were historically there, you can draw sensible inferences from the published trust data as to what that claimant -- whether that claimant is going to have a claim against the Owens Corning trust. If so, whether it's likely to be allowed and paid; and if it's paid, how much. And you can factor that in to your own picture of where Garlock fits in appropriately to the settlement of the claim. They were at no disadvantage.

The only disadvantage they suffered was that now rather than flying under the wing of Manville or Owens

Corning, they had to put on their own defense. And their defense is costly because they rely upon scientists with high billing rates. That's their choice. There could be other ways to make their case, but that's their choice. It's not something that they can justly appeal to you to solve for them. The bankruptcy court does not sit to rearrange the economic factors working on litigants outside of the bankruptcy court.

So we'll have a lot to say about the 15 cases that

they purport to base their attack on the usual way of estimating on. But fundamentally their problem is this.

Let's see the last slide, please.

In the decade of the 2000s, Garlock paid 8,567 mesothelioma claims. That's not counting the 3,500 or so that they dismissed without payment.

They have produced in this case pursuant to order and stipulation RFA list 1 consisting of the listing of claims they say were distorted by misrepresentations and concealments in the tort system; although, they do not reserve the right and will not offer evidence of that kind of conduct in all but 26 of those cases. Those 26 are RFA list 1.

And then finally, they have what they call their designated claims of which they -- there are 18: Three of which were Garlock victories and the remaining 15 of which were the ones they deposed the plaintiff's lawyers about.

Now, the RFA list 1 about which we're not going to hear evidence of claims of specific misconduct or discovery abuse, that broader list represents only 2-1/2 percent of the paid claims from the decade of the 2000s.

RFA list 1 -- 1A rather, the ones where they do reserve the right to offer that kind of evidence, where they did take those depositions and other discovery, is just 3/10 of a percent of the overall paid claims. Just 12 -- a little less than 12-1/2 percent of the broader group of 210 even.

And finally, the designated claims, even giving them -- counting the three that they won, are less than 3 percent. Just .2 percent of the paid claims and less than 9 percent of the RFA list 1 claims.

It's a wildly misleading analysis. It invites you to subject -- to submit to prejudice and to generalize from their view of revisiting 15 cases and flashbacking how the discovery was handled in those cases in the absence of those litigants, to generalize to some grand conclusion about taint in the overall resolution history in the decade of the 2000s.

assumptions that we will controvert through evidence. Those assumptions are that when you list a client in the off-the-record, off-the-docket exhibit that accompanies the 2019 statement in an asbestos case, you are saying that claimant has present possession of evidence sufficient to go to the jury in the tort system against that debtor's product. They don't mean that. They couldn't possibly mean that at the very beginning of the case where the question is just rounding up the people who are taking an interest in the particular bankruptcy case through their tort lawyers.

Likewise, ballots. They say a ballot is a sworn statement under penalty of perjury that your client was exposed to that debtor's product to the extent that they can attribute causation to that debtor's product as though they

were in front of the jury there and then. It's not what the ballots mean. By and large, they say on their face that that's not what they mean. And when you consider the ballots in the context of their function in the ongoing reorganization case, you can't possibly credit them as having the meaning that Garlock tells Dr. Bates to assume, and which he duly does assume. They are not the equivalent of a case presented to a jury.

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Indeed, even trust claims themselves don't rise to that level. You've heard about site lists whereas settled defendants, the trust accepts claims based not on tort system evidence that would get to the jury on causation, but on certain cost effective presumptions that are aimed at preserving the limited funds that are the trust for the benefit of the present and future claimants who will receive pennies on the dollar after all for their claims. And those presumptions have to do with lists of sites where based upon the trust predecessor's records, the presence of the injurious products was established to a fair-thee-well.

And so as the settling defendant has the prerogative to do, they accept claims from persons who worked there in specified trades, also approved by the trust at specified periods of time, giving them the benefit of that presumption, not forcing on them the costs of proving what the trust already knows.

Now, as a litigating defendant, Garlock was not obliged to give plaintiff's the same break. And of course, it didn't when it wanted to litigate in earnest. But that doesn't mean it isn't at all injured by the trusts approaching settlement in that way any more than Georgia-Pacific was injured when Garlock chose to settle a claim based upon some evidence that the plaintiff had contact with its product and had satisfactory medicals, whether or not that proof would rise to the level of recreating a jury issue if it would be tried.

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Garlock's entire strategy for impeaching its own hard bargain settlement history is to pluck out of context these documents that do not mean what they say, to misinterpret the documents, and to mount a massive gotcha on the 210 claims where they paid dollars that they now regret. It's not a legitimate strategy.

Jim Patton, a very experienced legal representative of future claims and bankruptcy lawyer will come to testify to place that kind of document in its proper context.

And a game of gotcha is one thing, Judge, but history is not so easy to escape. There is in life just as there is in this estimation no returning to a past decade so let's go forward and see what the evidence shows.

THE COURT: Thank you.

MR. SWETT: Thank you, Judge.

1 THE COURT: Why don't we go ahead and take a break and then come back and start with your first witness. All 2 3 right. MR. CASSADA: Thank you. THE COURT: Take until 5 minutes till. (Brief recess at 2:42 p.m.) 6 THE COURT: All right. We'll proceed. 7 MR. HARRIS: Your Honor, the debtors calls Charles 8 9 Wasson. 10 THE COURT: Okay. While he's coming up -- let me --I forgot to mention earlier the CSOs, court security officers, 11 12 told me that they will permit the lawyers to come through with 13 their cell phones and laptops. But if one of your expert 14 witnesses is going to come in with a cell phone and laptop, please ask them to identify themselves to the court security 15 16 officers there and they'll let them come through once they 17 identify themselves as an expert in this case. Go ahead. 18 CHARLES DAVID WASSON, 19 being first duly sworn, was examined and testified as follows: 2.0 DIRECT EXAMINATION BY MR. HARRIS: 21 Please tell us your name. 22 Ο. 23 Charles David Wasson. Α. 24 Where are you from? Q.

I'm from Valley Center, California.

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Α.

- 1 | Q. What do you do for work?
- 2 A. Currently I am an independent naval expert, consultant,
- 3 and I have been engaged by various law firms from time to time
- 4 concerning asbestos litigation.
- 5 Q. This case involves asbestos gaskets and packing. Do you
- 6 know about those?
- 7 A. Yes, I do.
- 8 Q. How do you know about asbestos gaskets and packing?
- 9 A. I spent 30 years in the navy.
- 10 | Q. Will you be able to tell us how asbestos gaskets and
- 11 | packing were used in the real world?
- 12 A. Yes. Yes, I will.
- 13 | Q. All right. Have you also prepared some slides for us to
- 14 help illustrate your testimony?
- 15 A. I have.
- 16 Q. I'm projecting a slide here. Can you tell us where this
- 17 is from.
- 18 A. Yes. This is a photograph that I took aboard the museum
- 19 ship, the Turner Joy, that's at Puget Sound -- or in
- 20 Bremerton, Washington. And the purpose is to demonstrate the
- 21 density of piping that's in these engineering spaces.
- 22 This is the fire room, the upper level of the after one.
- 23 And you can see in the overhead the numerous pipes. Those are
- 24 insulated with asbestos-containing lagging on the outside,
- asbestos-containing insulation on the inside, and then there's

- 1 asbestos-containing cements that are used on the curves and
- corners. And there's a valve in the upper right-hand corner,
- 3 you can see the valve coil hanging down. It's painted blue.
- 4 That's actually asbestos-containing cement over the outside of
- 5 | it.
- 6 MR. FINCH: Your Honor, I would just object to the
- 7 extent he hasn't been proffered as an expert yet. I'm
- 8 probably not going to have any objection as to qualifications;
- 9 but since he's getting into substantive testimony, I would
- 10 appreciate just a proffer as to what Captain Wasson is an
- 11 expert in.
- 12 THE COURT: All right. Do you want to take him
- 13 through that.
- MR. HARRIS: Sure.
- 15 THE COURT: Okay.
- 16 BY MR. HARRIS:
- 17 Q. We'll talk a little bit about your background and then
- 18 | we'll come back to these materials.
- 19 Captain Wasson, will you please tell us about your
- 20 educational background.
- 21 A. Yes. I attended the University of Colorado and got a
- 22 degree in petroleum geology.
- 23 Q. And when did you graduate?
- 24 A. In 1960.
- 25 Q. What did you do after that?

- 1 A. Well, the citizens of the United States decided that I
- 2 | probably should be in the armed services. I got a draft
- 3 | notice, and I turned out to be qualified. And to avoid the
- 4 army, I joined the navy and went through the officers
- 5 candidate program.
- 6 Q. Where were you first assigned?
- 7 A. First I went to Newport News -- Newport, Rhode Island,
- 8 and went through the officers candidate school there.
- 9 0. And after that --
- 10 THE COURT: You're smarter than I was. I joined the
- 11 marines.
- 12 THE WITNESS: I had a hot shower most every night.
- 13 Long as I could make the evaporators run.
- 14 Anyway, after a short time at the fire fighting
- 15 | school in Philadelphia, I reported aboard the aircraft carrier
- 16 Oriskany for my first tour of duty.
- 17 Q. All right. We have that displayed here. That was from
- 18 | 1961 to 1963. Can you tell us what that type of work was that
- 19 you were doing, what your responsibilities were.
- 20 A. Well, first six months we were in overhaul and I was
- 21 overhaul coordinator. But when that finished on the Oriskany,
- 22 | I became a boilers officer.
- 23 Q. What does that mean for a ship to be in overhaul?
- 24 A. Well, that's where most of the machinery that doesn't
- work well gets repaired or you hope you get all of it

- 1 repaired. The valves are repaired. New piping is put in.
- 2 New insulation obviously is installed, new gaskets and packing
- 3 where it's needed. The shipyard is doing their work; but at
- 4 | the same time, the crew has their list of things they have to
- 5 perform too. So the shipyard and crew are working together.
- 6 Q. So the crew's on board while the shipyard is doing their
- 7 | work?
- 8 A. Absolutely.
- 9 Q. What's the first phase of the overhaul process?
- 10 A. Well, the first phase, they call it a rip out which is --
- 11 sounds like we're tearing the ship all apart. To a great
- 12 extent you are. But the first thing is you remove all the
- insulation that's going to be -- machinery is going to be
- 14 repaired or fixed, you get that out of there. But at the same
- time the machinery that is going to be repaired, it's being
- 16 removed at the same time. The crew is down there and
- everything is coming out. So they call it rip out. That's a
- 18 | big name. That's the first thing that occurs.
- 19 Q. All right. And during that rip out phase, who's on
- 20 board? Shipyard personnel?
- 21 A. A lot of shipyard personnel and the crew.
- 22 | 0. All right. Have you been on board ships during the rip
- 23 out phase of overhaul?
- 24 A. Yes, sir. The Oriskany.
- 25 Q. The Oriskany was one. Did you see asbestos gasket and

- 1 | packing work going on aboard the Oriskany when it was in
- 2 overhaul?
- 3 A. During the overhaul time, yes. That was one of the
- 4 operations that occurred that I witnessed.
- 5 Q. All right. And so this was in 1961. You said you became
- 6 a boiler officer?
- 7 | A. Yes.
- 8 0. What is that?
- 9 A. Well, I was the guy that got in charge -- placed in
- 10 | charge of the ship's eight boilers. We had four fire rooms,
- 11 | 250 men. I also had the evaporators to make the water for the
- 12 ship, and then kept track of the water inventory. That's both
- 13 | feed water for the boilers and potable water for domestic
- 14 uses. And then we had a couple million gallons of fuel on
- 15 too.
- 16 Q. And what kind of ship was the Oriskany?
- 17 A. It was an aircraft carrier.
- 18 Q. All right. So you were there for two years. Tell us
- 19 about your next assignment.
- 20 A. My next assignment was on the Coontz, it was a guided
- 21 missile destroyer.
- 22 Q. And what was your role?
- 23 A. I was a damage control officer for the ship.
- 24 | Q. Would a damage control officer have anything to do with
- 25 gaskets and packing?

- 1 A. Yes, it did. One of my duties in addition to looking out
- 2 for the damage and fire on the ship during general quarters
- 3 | time, I had the auxiliaries division, the R division, and the
- 4 | electrical division. The R division, R stands for repair, and
- 5 these guys are the guys that went around and repaired the
- 6 pipes throughout the ship when they leaked. One would think a
- new ship, they don't leak, but salt water has a way of doing a
- 8 job on the piping system so oftentimes the R division guys
- 9 were out fixing valves that were leaking, taking valves out
- 10 that had to be repaired or removing sections of piping that
- 11 had to be replaced.
- 12 These were covered with insulation material and since
- 13 | Coontz was a 1960 built ship, it was asbestos-containing
- 14 materials. And packing and gaskets were involved in that,
- 15 too.
- 16 Q. On the Oriskany, when was that ship built?
- 17 A. Oriskany was built in 1950.
- 18 Q. And did it have asbestos-containing insulation materials
- 19 on it?
- 20 A. Yes, it did.
- 21 | Q. Back to the Coontz. Did you -- were you -- have you ever
- changed gaskets and packing in the course of your work?
- 23 A. Well, when I was a boilers officer on the Oriskany, I, in
- 24 fact, did hands-on work with my men to learn. I was a very
- 25 junior officer at the time. Yes, I repacked the valve.

- 1 Helped repack a pump. Made a compressed asbestos sheet
- 2 gasket. Installed flexitallic or spiral-wound metal gaskets.
- 3 So I made myself a semi expert so I would know how do what my
- 4 men were doing.
- 5 | Q. And on the Coontz, did you ever come in contact with
- 6 asbestos insulation yourself?
- 7 A. Yes, I did. Oftentimes we have piping leaking and I
- 8 | would want to find out how bad is the bad news under this.
- 9 And oftentimes I would use a hammer, I preferred a claw
- 10 hammer is what I used. It was much easier. My men did not
- 11 appreciate their officers doing this because it made a
- 12 | terrible mess. But I wanted to know how much pipe are we
- 13 going to have to replace. And I did that on one occasion; and
- 14 after a talking to by the chief behind doors, I didn't do that
- 15 anymore.
- 16 Q. What about your men, have you ever watched your men
- 17 remove insulation to get to a valve or to get to a gasket?
- 18 A. Yes, many times.
- 19 Q. Your next assignment was on the USS Goldsborough as the
- 20 chief engineer. What type of ship was that?
- 21 A. Goldsborough was a smaller ship. It was a guided missile
- 22 destroyer and we had four boilers and two main engines on that
- 23 ship.
- 24 Q. Did you ever come in contact with asbestos gaskets and
- 25 packing or insulation during the course of that work?

- 1 A. Oftentimes. Goldsborough was a 1963 built ship and it
- 2 was an asbestos built ship. And of course, during the process
- of operating the ship, I observed my men more than one time
- 4 replacing gaskets at various times as well as doing packing
- 5 work.
- 6 Q. Have you been -- was the Goldsborough an overhaul when
- 7 you came on board?
- 8 A. Yes, it was, matter of fact. About halfway through.
- 9 Q. Then in 1970 to 1972, your position was aircraft carrier,
- 10 | long-range planning officer; is that correct?
- 11 A. Yes, sir. Got a reprieve and was ashore for a couple of
- 12 years there.
- 13 Q. Did you have any contact with asbestos gaskets or packing
- in the course of that work?
- 15 A. During that period, no.
- 16 Q. All right. From 1972 to 73, there's an entry for
- 17 | Vietnamese naval ship overhaul advisory. Can you tell us what
- 18 this referenced.
- 19 A. Yes. I got volunteered to go to Vietnam for a year, and
- 20 my job fortunately took me out of country often. I was
- 21 responsible for the turn over of various World War II ships to
- 22 the Vietnamese navy. And there were ships -- we were
- 23 overhauling these ships before we gave them to them. And I
- 24 | had some ships in Guam, in Subic Bay, Philippines, and down in
- 25 | the Republic of Singapore. And once a month I made the tour

- around to these three shipyards to see how the overhaul was
- going, talk with the Vietnamese crew. And I observed them
- 3 working with packing gaskets and even talked to them on
- 4 occasion about how -- ways to pack valves or pack a pump.
- 5 | Q. What about asbestos insulation, was asbestos insulation
- 6 used on these ships that we were turning over to the
- 7 vietnamese?
- 8 A. Yes, sir. They were all World War II guys.
- 9 Q. Captain Wasson, we're up to 1973 to 1976. It says
- 10 SupShips, ship superintendent. Can you tell us what that
- 11 represents.
- 12 A. Yeah. The navy has these acronyms and SupShips doesn't
- 13 mean to a lot of people, but it is an abbreviation for
- 14 | supervisor of ship building, conversion and repair. And the
- 15 navy had about 11 of these officers around the United States
- 16 and their job was to issue contracts to private contractors
- 17 for the repair of navy ships that were in the port.
- 18 My SupShips in San Diego administered to about nine
- 19 master ship repair contractors that were awarded contracts if
- 20 they were the low bidder to do repair works on various ships.
- 21 | Q. It says ship superintendent. Would you have any
- 22 responsibility or would the course of your work take you into
- 23 contact with asbestos gaskets and packing or insulation during
- 24 that time?
- 25 A. Yes, it did. As a ship superintendent on the waterfront

- where the carriers were moored, I did repair periods with
- 2 | Kitty Hawk, another one with Constellation, and another one
- 3 with Ranger. And there were other ships, but the aircraft
- 4 carriers were my specialty and there were major repair periods
- 5 and there were any number of contractors on board. I daily
- 6 was on those carriers during each one of those availabilities
- 7 of repair periods and I observed contractors working with
- gaskets and packing on various ship systems.
- 9 Q. All right. What about asbestos insulation during this
- 10 | time period?
- 11 A. Yes. Kitty Hawk and Constellation were both delivered to
- 12 the navy in '61, and Ranger was a '57 ship. So they were
- built during the time that the navy was using
- 14 asbestos-containing materials.
- 15 Q. All right. Was the navy in 1973 installing
- 16 | asbestos-containing insulation at this time?
- 17 A. No. They had ceased -- well, there was some particular
- 18 items that replacements hadn't been identified. But in '72
- 19 they commenced a phasing out of asbestos-containing
- 20 insulation; and as new materials were found, they started
- 21 using those. '73 there was only one or two items left that
- 22 still had asbestos in it, but they disappeared by '74.
- 23 Q. In 1976 to 1978 you were assigned to the USS
- 24 | Constellation as the chief engineer; is that correct?
- 25 A. That is correct.

- 1 | Q. What's the -- what type of ship was the Constellation?
- 2 A. It's an aircraft carrier.
- 3 Q. When was it built?
- 4 A. It was built at Brooklyn Naval Shipyard, delivered in
- 5 1961.
- 6 Q. Would asbestos insulation have been installed on the USS
- 7 | Constellation?
- 8 A. Yes, there was.
- 9 Q. So your -- what was the role as the chief engineer of
- 10 | this aircraft carrier?
- 11 A. Well, I was responsible to the captain for the ship's
- 12 mobility. I had -- the ship had eight boilers that I oversaw,
- and I had men to help me with it, four main engines. And we
- 14 took care of, you know, making this big ship go. When we got
- underway, I always felt like another miracle performed with
- 16 these 17 to 20-year-old kids running this monstrous machine.
- 17 The engines on it were 240,000 shaft horsepower. It was an
- 18 amazing ship. The captain could water ski behind it it went
- 19 so fast.
- 20 Q. Did that happen?
- 21 A. No, no.
- 22 Q. As the chief engineer, it sounds like that's a fairly
- 23 senior position on board the ship. Are you ever down in the
- 24 | machinery spaces when the crew is working?
- 25 A. Daily. I kind of managed by walking around to see what

- 1 was going on. Obviously, I had a good force of other officers
- 2 to help me run this big ship, a good bunch of chief petty
- 3 officers, but I was always wandering around to see what was
- 4 going on. Particularly during the in-port periods when we had
- 5 | a lot of repair work going on just to see what was being done.
- 6 Q. All right. From 1979 to 1982, you're at Long Beach Naval
- 7 | Shipyard. Can you tell us what your responsibilities were
- 8 during that period of time.
- 9 A. Well, my first year in the shipyard I was a program
- 10 | manager as well as a ship superintendent overseeing a one-year
- 11 program on the new ship Belleau Wood. We had major
- 12 | modifications to make to the ship after it was delivered. And
- 13 | my job was to oversee those repairs for that year. And then
- 14 | monthly I got to make a trip to Washington, DC, and report to
- 15 | five admirals how well we were doing.
- 16 Q. Did any of that work bring you into contact with asbestos
- 17 gaskets or packing?
- 18 A. Yes, it did. I mean, we were making major piping mods to
- 19 this new ship and there were any number of piping systems
- 20 going in and new valves that had gaskets of various types
- 21 going on them as well as repacking some of the valves, too.
- 22 Q. Now, being the repair officer on the -- that oversaw the
- 23 USS New Jersey reactivation, can you tell us what that was
- 24 about.
- 25 A. Well, after my first year as the program manager, I moved

- 1 up to repair officer where I was overseeing all the work that
- 2 was going on in the waterfront of the shipyard. We had five
- 3 or six overhauls going on. And one of the fun jobs that came
- 4 through was reactivation of the big Battleship New Jersey. It
- 5 | was such a wonderful big piece of machinery. It was delivered
- 6 to the navy in '43 and operated through the '90s.
- 7 O. When it was -- when it was going through this
- 8 reactivation, was there asbestos insulation on board?
- 9 A. Yes, there was a large amount of it. And initially we,
- 10 the navy, thought we would probably remove all of it and
- 11 | replace it, but it quickly became a realization it's too
- 12 expensive an undertaking. So we only abated where we were
- 13 working, sealed the other.
- 14 Q. Captain Wasson, from 1982 to 1983, it says U.S. Pacific
- 15 | fleet, surface ship maintenance officer. Can you tell us what
- 16 | that work was about.
- 17 A. Well, I was -- it's ashore obviously. My job was to
- 18 oversee the overhauls the surface force had going on
- 19 throughout the west coast of the United States. There were
- 20 overhauls and repairs in the Seattle/Tacoma area, San
- 21 | Francisco, Long Beach, and, of course, the Port of San Diego,
- 22 as well as Hawaii. I had five or six overhauls going at any
- 23 one time and I would make the round to visit these ships to
- 24 | see how it goes.
- 25 Q. Would you be on board when any asbestos gasket and

- 1 packing work might have been going on?
- 2 A. Yes.
- 3 Q. Was there asbestos insulation on those ships?
- 4 A. The new ships at that point in time, no. The older ships
- 5 going over -- through overhaul, yes. But in that time
- 6 | framework, asbestos abatement was being followed very
- 7 strictly, so you didn't get into asbestos without it being
- 8 sealed off.
- 9 Q. All right.
- 10 A. You didn't do that.
- 11 Q. So your last two assignments you were the commanding
- 12 officer, first at SupShips San Diego and then SupShips Newport
- 13 News; is that correct?
- 14 A. Yes.
- 15 | Q. In the course of that work or your responsibilities,
- 16 | would you have been in contact with asbestos gaskets or
- 17 packing?
- 18 A. I saw it being performed at both facilities. You know,
- 19 as a CO in San Diego, I went around and visited the ships I
- 20 had in overhaul as well as the ones that were under
- 21 construction and so I would see what was going on. So, you
- 22 know, it's a natural course of things gaskets are going in on
- 23 any number of piping and valve systems as well as the work the
- 24 | crew is doing during these overhauls.
- 25 Q. During the entire course of your career, you -- you had

- experience with asbestos, gaskets, packing, and asbestos
- 2 insulation, as I understand; is that correct?
- 3 A. That is correct. They were used on piping systems that
- 4 | are the life blood of any ship.
- 5 Q. In that -- in that context, in your personal work, how
- 6 would you know which gaskets go where, which packing goes
- 7 where, where the asbestos insulation might go as opposed to
- 8 other insulation?
- 9 A. Well, there's documentation out there that explains, you
- 10 know, Bureau of Ships Technical Manual explains what type of
- 11 | insulation to be used where and on what system. And there's
- 12 | also mil standards that tell you what type of gaskets should
- 13 be used on what systems, too. So there's a lot of
- 14 documentation to tell you what you should be putting where, or
- 15 | what you're required to put where.
- 16 Q. You mentioned BuShips Technical Manual. Can you tell us
- 17 what that is.
- 18 A. Well, the Bureau of Ships of the navy had a big set -- it
- 19 was about three volumes wide and it had about a hundred
- 20 chapters in it. And each chapter, a sailor could go to it,
- 21 | tell him how to paint a ship, how to work on a turbine, how to
- 22 work on a pump, how to work on a boiler, how to put insulation
- 23 in, how to put packing in. And each ship had a set of these
- 24 on board.
- 25 | Q. And those are materials that you would have viewed

- 1 personally and used?
- 2 A. Yes.
- 3 | Q. Were those instructions that were in the BuShips
- 4 Technical Manual, were they followed?
- 5 A. Yes, they were.
- 6 Q. Were there other sources of information that told you
- 7 which types of gaskets go where, which types of packing go
- 8 where and which types of insulation go where?
- 9 A. Well, ship's drawings would tell you what type of
- 10 insulation goes where.
- 11 Q. Would the ship's drawings be something that you
- 12 personally would have used during the course of your career to
- 13 understand where to use asbestos gaskets and packing?
- 14 A. Many times I had the ship's drawings out for any number
- 15 of things.
- 16 Q. And so the ship's drawings would be specific to the ships
- 17 | that you were on. The BuShips Technical Manual would be --
- 18 | would that be specific to your ship or would that be for ships
- 19 generally?
- 20 A. It's ships in general. But that which appeared on the
- 21 drawing parallels what's in BuShips Technical Manual.
- 22 | O. All right. We've heard about military specifications and
- 23 QPLs. Can you tell us what those are.
- 24 A. Well, for the various products that the navy used and the
- 25 government had, they wrote up a specification of what that

- 1 | material should consist of. You know, what's the materials
- 2 you put into it, how thick it would be, how do you package it
- 3 for shipping, and all these details. That's the
- 4 | specification, you know. And I jokingly say it tells you how
- 5 to make a camel out of a horse. They have a spec for almost
- 6 everything that's bought.
- 7 | O. All right. What are OPLs?
- 8 A. That's the qualified products list, and various companies
- 9 who wanted to make a particular product for the government
- 10 would make application to get their product that complies they
- 11 | felt with a particular military specification so they could be
- 12 certified and then placed on the qualified products list so
- 13 that they would be one of the eligible candidates to provide
- 14 materials to the government.
- 15 Q. In the course of your work, did you use military
- 16 | specifications?
- 17 A. Yes, I did.
- 18 Q. Would you refer to QPLs?
- 19 A. Not really. I really wasn't in the procurement business.
- 20 | I knew they were out there. And oftentimes I wanted to go to
- 21 some particular company to get something and they said,
- 22 huh-uh, you've got to go to the QPL. But I didn't really use
- 23 them.
- 24 MR. HARRIS: Your Honor, we tender Captain Wasson as
- an expert witness on how asbestos gaskets, packing, and

- insulation, and other asbestos products were used on board
- 2 ships currently and historically.
- THE COURT: Okay.
- 4 MR. FINCH: Brief voir dire, Your Honor? Nathan
- 5 | Finch Asbestos Claimants Committee.
- 6 THE COURT: Yeah, go ahead.
- 7 VOIR DIRE EXAMINATION
- 8 BY MR. FINCH:
- 9 Q. Good afternoon, Captain Wasson. My name is Nate Finch.
- 10 A. Good afternoon, Mr. Simpson.
- 11 | O. Mr. Finch.
- 12 A. Finch.
- 13 Q. Like a bird, F-i-n-c-h.
- 14 A. Okay, got it.
- 15 Q. Captain Wasson, you're not an industrial hygienist,
- 16 | correct?
- 17 | A. No, I'm not.
- 18 Q. You don't have a degree in engineering, correct?
- 19 A. What kind?
- 20 Q. You don't have a degree in engineering.
- 21 A. No, mine's in geology.
- 22 | Q. In geology. You don't have expertise in using either
- 23 electron microscopes or light microscopes to analyze what type
- 24 of asbestos fibers are in products or dust, correct?
- 25 A. Correct.

- 1 | Q. It's never been your job to figure out how to comply with
- 2 OSHA limits or regulations for removing gaskets, correct?
- 3 A. Correct.
- 4 | Q. You don't know what the level of asbestos fiber
- 5 concentration would have to be before it's visible to human
- 6 eyes, correct?
- 7 A. Correct.
- 8 Q. And you don't know if someone -- if insulation releases
- 9 dust, you don't know how much of that that you see is
- 10 | asbestos, correct?
- 11 A. Yes. I mean, you're correct.
- 12 Q. And likewise, if somebody is scraping a gasket off a
- 13 | flange, you don't know how much of the stuff in the air could
- 14 be asbestos, correct?
- 15 A. No, I would not.
- 16 | Q. And so you don't -- and you certainly don't know what, if
- any, health consequences would arise from scraping a gasket
- 18 off of a flange. That's not part of your area of expertise,
- 19 | correct?
- 20 A. No, sir.
- 21 MR. FINCH: Okay. With that voir dire, Your Honor,
- 22 | I have no objection to the areas that Captain Wasson has been
- 23 designated as an expert as long as his testimony is limited to
- 24 that.
- 25 THE COURT: All right. Then I'll accept him as an

1 expert.

## 2 DIRECT EXAMINATION

- 3 BY MR. HARRIS:
- 4 Q. So Captain Wasson, we're going to scroll back real
- 5 quickly to some -- oops, wrong way -- to some slides here that
- 6 we skipped over.
- 7 We were back here at the -- I believe -- did you say this
- 8 was the engine room on the Turner Joy?
- 9 A. It's the upper level of the after fire room.
- 10 | Q. All right. And what type of ship was the Turner Joy?
- 11 A. It was a destroyer, what they call a 1200-pound
- 12 destroyer.
- 13 Q. When was it built?
- 14 A. It was built in '59.
- Q. Okay. And now it's a museum ship in Bremerton; is that
- 16 correct.
- 17 A. That is correct.
- 18 Q. All right. So I was going to ask you if you could
- 19 identify for us the asbestos products that we might see here
- 20 in the engine room.
- 21 A. Yes, I can.
- 22 | Q. All right. Please do. Please tell us what we see.
- 23 A. Well, first of all, the person pulling this out just to
- 24 demonstrate the density of the piping systems that shipyard
- workers have to face in these destroyers. They're very tight

- 1 spaces. In the overhead running there away from us and down
- 2 towards the deaerating feed tank, which no one knows what it
- 3 is, but that's the tank on the far side. There's three big
- 4 | pipes there. Insulated on the outside of it is
- 5 asbestos-containing cloth. Underneath that would be
- 6 asbestos-containing pipe insulation. It's preformed. And
- 7 then as I said earlier, the curves and such are filled in with
- 8 cements which has an asbestos content. And that cement, a
- good example of it is over on the valve on the right-hand side
- 10 | that's hanging down, at that cement that's been formed around
- 11 that valve.
- 12 Q. All right. Would there be gaskets and packing on these
- 13 pipes?
- 14 A. Yes, there would be. There's not any immediately looking
- 15 flanges in there, but other places there are.
- 16 Q. All right. This was another picture. Can you tell us
- where you took this picture.
- 18 A. Yes. That's a picture I had taken aboard the Museum Ship
- 19 Massachusetts. It happens to be in the pipe shop.
- 20 Q. All right. And what type of ship was the Massachusetts?
- 21 A. It was a battleship.
- 22 | O. Built in what era?
- 23 A. 1940.
- 24 | Q. And these were just down in the -- where did you say?
- 25 The pipe shop or the --

- 1 A. It was in the pipe shop. They had -- I actually took the
- 2 | picture through Plexiglas so that's the way they had -- the
- 3 | pipefitters had left them or the curators of the museum had
- 4 arranged them. But it's an example of compressed asbestos
- 5 sheet gaskets that are used on stationary fittings.
- 6 Q. It looks like the top one is labeled Nicolet (phonetic),
- 7 but the next one down is Scarlock (phonetic); is that correct?
- 8 A. Yes. And there's other companies down through the pile
- 9 there, too.
- 10 | Q. All right. We've talked about asbestos packing. Is this
- 11 | a picture of asbestos packing?
- 12 A. Yes, that's an example of what asbestos packing looks
- 13 | like. This is a little tin. It's coiled up. You can see how
- 14 shiny it is. That's the graphite particles on the outside as
- well as it's been sprinkled with talcum so it doesn't stick
- 16 together. And the darker glossy stuff is a rubber material
- 17 that's in the packing to hold it together.
- 18 Q. Captain Wasson, I wanted to -- we've got some asbestos
- 19 packing that Garlock made in a plastic bag here.
- 20 MR. HARRIS: Your Honor, may I approach the witness?
- 21 THE COURT: Yes.
- 22 THE WITNESS: Yes. That's packing.
- 23 Would Your Honor like to look at what one of them
- 24 looks like?
- Q. Does that appear to be asbestos?

- 1 A. It is asbestos, but it's sealed up in a bag. And you can
- 2 see the little sparkles of graphite on it.
- 3 Q. And so this -- and so this packing has a lubricant or
- 4 graphite on the outside of it?
- 5 A. Yes, it does.
- 6 Q. And that's what this appears to be inside this can?
- 7 A. Yes, that's what you're seeing in the photograph there.
- 8 Q. All right. About what size would this can be? We've got
- 9 it blown up on the big screen there.
- 10 A. Well, it's about two inches in diameter and the packing
- inside is probably about 3/8 wide. It's not particularly
- 12 large.
- 13 Q. Okay. Captain Wasson, this looks like another picture of
- 14 | a valve. Can you explain this picture to us, where you took
- 15 it.
- 16 A. Yes.
- 17 And Your Honor, could I approach the screen --
- 18 THE COURT: Sure.
- 19 A. -- to do some pointing? It's a little hard to make
- 20 certain that everybody knows what I'm talking about or
- 21 pointing at.
- 22 (Witness stepped down from the witness stand.)
- 23 Q. Captain Wasson, let's just put this microphone on your
- 24 lapel.
- 25 A. Oh, okay. That way I'll be amplified appropriately.

- 1 Q. There you go.
- 2 A. Let's make certain I don't block the picture or anybody
- 3 | else's view.
- 4 Q. Okay.
- 5 A. This was taken aboard the Museum Ship Lexington. It's
- 6 down in the forward auxillary machinery room. There's a shell
- 7 in the background. And the valve, see it right here. Big
- 8 valve. Unfortunately the valve wheel is missing on it. But
- 9 there's a flange underneath the insulation here. There's a
- 10 | flange up at the top. And this being a gate valve, there's a
- 11 | flange on the bonnet of it. And you can just barely see the
- 12 packing gland which is a yellow material. It's taken on a
- 13 nice green corrosion color for the packing gland.
- 14 Q. Captain Wasson, I've got -- I've got an example of a
- 15 valve. If you want to step over here, I'll hold it.
- 16 MR. HARRIS: Your Honor, may we approach the bench
- 17 to show you?
- 18 THE COURT: Yes.
- 19 Q. Captain Wasson, can you tell us what this is.
- 20 A. Well, it's a gate valve. If someone -- it's been cut, a
- 21 quarter of it has been removed on it.
- 22 I'll turn it this way, Your Honor, so you can see it as
- 23 | well on it. It's been cut open.
- 24 Let's start over here on the outside. There's a gasket
- 25 to seal one of the flanges. This particular flange has pipe

threads on it so it tells me it's a low pressure guy.

On the other side we can see the -- where another gasket would go. And there would be a gasket there. Has a phonographic finish to help seal it.

You can see the gate down inside. Not everybody in the audience can see the gate in it, but it's a gate. It's a rising stem valve. Threads here so the stem comes up when you open it.

Up here at the top, up at the top of it here you can see the packing. Of course, it's a small valve so the packing is not very big in it.

There's a packing gland which shoves down against it.

And then as you tighten up the nut on it, it's kind of like your water faucet outside, just tighten the nut down and the packing squeezes out against the shaft and you get zero leakage there on that type of packing gland.

- Q. So if this was on a pipeline of some type, there would be pipe that would come out here and then pipe that would come out here (indicating)?
- 20 A. Yes. An inlet and outlet on it.
- Q. All right. And this is a small gate valve; is that right?
- 23 A. Yes, it is.

Q. Okay. And Captain Wasson, does that appear to be a gate valve?

- 1 A. Yes, that's a gate valve. That's a little one. This is
- 2 going to be much larger. It's probably as much as 10 inches
- 3 in diameter, that gate valve in there.
- 4 Q. Now, you mentioned earlier flexitallic or spiral-wound
- 5 gaskets. How are those different than asbestos sheet gaskets?
- 6 A. Well, asbestos sheet gaskets are used on low temperature
- 7 and low pressure because a gasket can't withstand much
- 8 temperature or a great deal of pressure; whereas, the metallic
- 9 spiral-wound ones are intended for the higher pressures and
- 10 | higher temperatures. They'll withstand it. This being a salt
- 11 | water system, underneath this insulation material would be, in
- 12 | fact, a compressed asbestos sheet gasket on both the flanges
- 13 and the bonnet.
- 14 Q. Historically, would a valve like that in that service be
- insulated with asbestos insulation?
- 16 A. Given the age of this ship, yes, it would be.
- 17 Q. How would -- if a sailor or shipyard worker was going to
- 18 access the flanges in order to remove the gasket or replace
- 19 the gasket, how would they go about doing it?
- 20 A. The insulation on this, it's actually insulation cement,
- 21 and then it's got -- actually the insulation cement is mixed
- 22 with a little bit of Portland Cement to get a nice, smooth
- 23 exterior of it. It gives it a very hard shell, like the back
- 24 of a turtle. A razor knife won't cut that stuff. It just
- 25 skids off of it, so you got to hammer it to break through it.

- 1 You know, there's various things, sailors used crow bars,
- 2 paint scrapers, and ball-peen hammers, is what I would most
- 3 often see. But that would have to be broken to gain access to
- 4 | those flanges to repair a leak or repair the valve.
- 5 Q. We showed the court this morning in opening -- during
- 6 opening statements a portion of a video from a project that
- 7 expert witness Fred Boelter had prepared for this proceeding.
- 8 And I've got another excerpt of this video here. Can you tell
- 9 us what's going on here?
- 10 A. Well, he's demonstrating the problem with gaining access
- 11 | to a flange that's been completely insulated under. To gain
- 12 access to the flange, that's what has to be done.
- In this case, fortunately the bottom wasn't insulated
- 14 under so he doesn't have to knock that off. But if you want
- 15 to work on it, you got to remove it and the cement is very
- 16 hard.
- 17 Q. Is that similar to conditions you saw aboard ships when
- 18 | sailors or shipyard workers were removing insulation in order
- 19 to access gaskets?
- 20 A. At Hunters Point I saw shipyard workers do that. On the
- 21 | Coontz particularly, as an R division officer, I did similar
- 22 things myself, as well as my R division men did on piping they
- 23 | had to repair.
- 24 | Q. Captain Wasson, I now want to scroll through to another
- 25 slide.

- 1 There we go.
- 2 A. We're getting me qualified here.
- 3 Q. Go back to the part of the exam where I had asked you,
- 4 | there's -- there's asbestos compressed sheet gaskets,
- 5 spiral-wound gaskets. Are there other types of gaskets that
- 6 are used in the navy?
- 7 A. Yes, there are.
- 8 Q. What were the other types?
- 9 A. Well, there are nonasbestos-containing. Rubber is used
- 10 in any number of places. There's cork that's used, like in
- 11 your wine bottle, and there's also various vegetable types.
- 12 Q. Okay. And then how do you know which gaskets go where?
- 13 A. Well the primary place on board ship is the BuShips
- 14 Technical Manual, Chapter 95, and it sets forth what type of
- 15 gasket materials should be used on what pressured system and
- 16 what temperatures.
- 17 Q. All right. This next photograph, can you tell us, is
- 18 | that a compressed sheet gasket?
- 19 A. No, sir. That's a spiral wound.
- 20 Q. And --
- 21 A. That's a picture I had taken on board the Battleship
- 22 Massachusetts of a spiral wound. These are -- they're
- 23 stainless steel spirals and they're kind of bent in a U and
- 24 | there's little fine sheets of papers between the bends or
- 25 wraps of it. It's spot welded on the outside so it won't come

- loose and it's also spot welded on the inside.
- 2 And, Your Honor, I just happen to have a couple of them
- 3 in my pocket here you can take a look at, see what a metallic
- 4 | spiral-wound gasket really looks like. These are
- 5 nonasbestos-containing.

- 6 Q. Captain Wasson, is this another spiral-wound gasket then?
- 7 A. Yes, it is. That particular one is used for a boiler
- 8 manhole. It's much larger. And that's a steam drum on the
- 9 boiler which during shut down time they need to go in and
- 10 clean the water sides on the boiler. That manhole would come
- out and this is the gasket that would be used on it.
- 12 Q. All right.
- 13 A. High temperature, high pressure.
- 14 Q. Can you tell us -- this looks like another gasket taken
- 15 from the Massachusetts?
- 16 A. Yes, it was. It was one I found on a pipe. And I think
- 17 | initially I called it a ventilation system, but I think it may
- 18 be auxiliary exhaust. It's an example of a compressed
- 19 asbestos sheet gasket. Taking it apart, it's typical in the
- 20 way they peel off in my experience. For some reason they
- 21 decided to save it and put a few bolts on it to hold it on
- 22 there for maybe future use.
- 23 Q. Mr. Swett spoke in opening about compressed sheet gaskets
- 24 having up to 80 percent or more asbestos in them. Is that
- 25 your understanding?

- 1 A. Yes, sir.
- Q. Now, how thick is this gasket?
- 3 A. That particular guy is only about a sixteenth of an inch
- 4 | thick. It's rather thin. And you can see the black color of
- 5 | it is because of the rubber material in it to hold it
- 6 together.
- 7 | Q. In your experience how thick -- what is the thickness
- 8 range of asbestos sheet gaskets?
- 9 A. Sixteenth to maybe an eighth.
- 10 Q. Sixteenth --
- 11 A. To an eighth of an inch thick. They do come in thicker
- varieties, but on navy ships generally eighth inch is the
- 13 thickest one we used.
- 14 | Q. So eight gaskets to an inch would stack up, right?
- 15 A. Yes.
- 16 Q. About how long are the pipe coverings that are used on
- 17 pipes? The sections, the pipe covering sections?
- 18 A. What do you mean by how long?
- 19 Q. How long are they?
- 20 A. Oh. Well, they're preformed sections and they're put on
- 21 the pipe and it will run from flange to flange. You know,
- 22 they put it on there and it's held on with wire and they come
- 23 back and put the cement, seal in all the little places that
- 24 | need to be sealed, and then the cloth goes over the outside of
- 25 that. So it could be maybe 15, 20 feet long before it runs

- 1 into a flange.
- Q. And how -- how thick is this pipe covering?
- 3 A. It will depend on what system it's on, and then the
- 4 temperature that system used. And then you go to BuShips
- 5 | Technical Manual and it will tell you how thick of what you
- 6 should be putting on.
- 7 | Q. Typically can you give us the size range of the thickness
- 8 of the pipe covering that would go on it.
- 9 A. It ranged from thinnest as maybe an inch up to almost
- 10 three inches thick on main steam.
- 11 Q. So is there materials or specifications for the navy that
- 12 tell you exactly which lines you put spiral-wound gaskets on
- and which lines you put compressed asbestos sheets on --
- 14 A. Yes.
- 15 Q. -- and other services?
- 16 A. Yes, there is. One we mentioned is Chapter 95. And then
- 17 in 1962 the navy came out with a mil standard that sets forth
- 18 | all those -- all those packing and gasket requirements.
- 19 Q. And what's the difference between the BuShips Technical
- 20 Manual and military standards?
- 21 A. There's none. You know, because they're issued at
- 22 different times, there's probably different guys are doing
- 23 them. I've found various small inconsistencies, but they're
- 24 basically darn near the same.
- 25 Q. All right. In the report that you prepared for this

- case, did you discuss one of the mil standards that would
- 2 address this?
- 3 A. Yes, I do.
- 4 Q. What was the mil standard that you identified?
- 5 A. Mil Standard 777.
- 6 Q. All right. And can you tell us what Mil Standard 777 is.
- 7 A. Yes. In 1962 the navy issued this and it's a document
- 8 that tells a shipyard or repair guy when he's working on a
- 9 particular system the type of pipe he should be using, the
- 10 valves that he should be using, the fittings, and also
- associated fittings like elbows and T's and things like that,
- 12 as well as also the gasket material that would be used on that
- 13 particular system. And it covers all systems on all ships.
- 14 By having this document, they didn't have to put all that
- information on every drawing they made, which they had done
- 16 | previously and it's very burdensome to put all that
- information on each drawing.
- 18 Q. Does the Mil Standard 777 cover steam systems on board
- 19 ships?
- 20 A. Yes, it does.
- 21 | Q. All right. Have you looked to see what different types
- 22 of steam systems are identified in Mil Standard 777?
- 23 A. Yes, I did. The next slide shows that there were 11
- 24 | steam systems identified in the 1962 edition of that mil
- 25 standard.

- 1 Q. And that specifies, it looks like according to this
- 2 | chart -- now, let me ask you first. Is this chart actually in
- 3 | Mil Standard 777 or is this a summary that you prepared of
- 4 that standard?
- 5 A. I pulled it from it. And those A numbers and B numbers
- 6 are the different systems that I pulled from the spec to make
- 7 | this table that shows only the steam systems that are
- 8 addressed.
- 9 Q. All right. And the Mil Standard 777 specifies the gasket
- 10 | type for each of those systems; is that correct?
- 11 A. Yes, it does.
- 12 Q. And what did it specify in that regard?
- 13 A. You can note here, I've indicated what type of gasket was
- 14 | recommended -- what's actually required by the navy, not
- recommended, and it's spiral wound which we were just
- 16 discussing. These are the metallic spiral-wound gaskets
- 17 commonly referred to as flexitallic. Kind of like all the
- 18 tissues are Kleenex. Well, all spiral wounds in the navy are
- 19 | flexitallic and they really aren't.
- 20 Q. Why would spiral-wound gaskets be specified instead of
- 21 | compressed asbestos sheet?
- 22 A. Because of the temperatures and pressures involved.
- 23 Q. So there's 11 steam systems and only one of those called
- 24 for compressed asbestos sheet; is that correct?
- 25 A. That is correct.

- 1 Q. Did you also look besides steam systems at all the other
- 2 systems that are covered by Mil Standard 777?
- 3 A. Yes, I did. 777, the '62 edition, actually -- well, this
- 4 shows only the one has the compressed sheet asbestos gasket --
- 5 Q. I've switched --
- 6 A. -- required.
- 7 | Q. I switched slides now to a different --
- 8 A. Yeah. This is all the systems from the 1962 edition of
- 9 777, pulled from the '62, and there's 12 systems that have
- 10 compressed asbestos sheet gasket as a recommended gasket or
- 11 it's an alternative shown on it.
- 12 Q. All right. The ones with an asterisk, what does that
- 13 indicate?
- 14 A. The one with the asterisk means they have a substitute
- 15 | that you could use. In my experience, as I went through and
- 16 looked at each one of those with the asterisk, most of them
- are the rubber -- sheet rubber is what's recommended. And if
- 18 I were chief engineer, I'd go put rubber in because it's
- 19 superior because they're salt water systems.
- 20 Q. All right. So the '62 systems, 12 specified the
- 21 compressed asbestos sheet; is that correct?
- 22 A. Yes.
- 23 Q. Captain Wasson, there's another table I believe you
- 24 prepared for your report with respect to compressed asbestos
- 25 sheet gaskets and Mil Standard 777. Can you tell us what this

- 1 represents.
- 2 A. What I looked at was these low pressure, low temperature
- 3 systems, you know, which ones of them have soft metal? In my
- 4 | experience, most of them I run into did.
- 5 And in looking at what 777 recommended, one can see of
- 6 those 12 systems where we do have an alternative or a choice
- 7 of using compressed asbestos sheet gasket, that probably about
- 8 75 percent of them are, in fact, what I call yellow metals.
- 9 And bronze, even though it's bronze colored, it's a yellow
- 10 metal to the navy.
- 11 Q. All right. What does that tell you about those flanges
- 12 or those fittings?
- 13 A. Well, it tells me that my experience and my old chief, to
- 14 | not use a grinder or something on a flange face. You're going
- to damage it. You can't do that to these soft metals, only
- 16 scraping.
- 17 Q. All right. I want to switch gears for a second. Can you
- 18 | tell us, this looks like a picture from the Lexington; is that
- 19 correct?
- 20 A. Yes, it is.
- 21 Q. All right.
- 22 A. Actually, we've got two valves shown here on the
- 23 | Lexington that I took this picture of. One in the background
- 24 over here on the far left is a fire main valve.
- 25 Down here is the valve wheel and here's the packing gland

on it, which it's accessible. But the bottom of the valve is completely enclosed in hard asbestos insulation, cement. And the two flanges on this big gate valve -- this gate valve is probably 14 inch. It's a fire main which is used to fight fires on the ship. Completely enclosed.

So if you wanted to work on this guy, you would have to knock this stuff off to gain access to the bonnet gasket or the inlet/outlet flange gasket, whichever is which. I'd say inlet/outlet, but I don't know for sure. This demonstrates the use of hard insulation where low temperature, low pressure gaskets are used.

- Q. Now, the valve on the right looks like it's insulated differently.
- A. Yes, it is. This is on the 150-pound system. A little higher temperature, a little higher pressure. Insulation on this guy is what you would call a removal pad. And this is supposed to be copper wire on it which a guy could cut and snip and take off.

The pad itself is made out of asbestos-containing cloth.

And generally they have asbestos cloth that's wired on the inside to help hold it together. And then packed around the valve in the open area where the bolts and the bonnet are is loose amosite asbestos would be around the bonnet.

Gaskets in this guy probably spiral wound or sheet gasket. Depends on what time it was worked on last and which

- document they used, but there's kind of a break in there
- 2 between using those two.
- 3 Q. All right.
- 4 A. It could have -- I think Dr. Longo found some sheet
- 5 gaskets on one 150-pound system.
- 6 Q. You're making a reference to a witness for the committee
- 7 in this case, Dr. William Longo; is that correct?
- 8 A. That is correct.
- 9 Q. All right. So this was taken on board the Lexington.
- 10 What type of ship was the Lexington?
- 11 A. Lexington was an aircraft carrier.
- 12 Q. Essex class?
- 13 | A. Essex class.
- 14 Q. Do you have any experience on Essex-class carriers?
- 15 A. That's what Oriskany was.
- 16 Q. All right.
- 17 A. I grew up on one.
- 18 Q. So we see valves insulated two different ways. What is
- 19 the instruction that you would look to to understand how --
- 20 whether to put a hard insulation on a valve or a pad?
- 21 A. Again, we go back to BuShips Technical Manual, to Chapter
- 22 | 39. Or in 1966 it became 9390. The navy preserved the 39 by
- 23 putting it in the middle for sailors.
- 24 But this is the 1966 version of Chapter 9390 issued in
- 25 | 1966 that explains how to install insulation lagging as well

- as what type of insulation covers go on what systems and what temperatures.
- And I need to go get my water, excuse me.
- 4 Q. Okay. Sure.
- 5 Captain Wasson, for this chapter, are there diagrams in 6 the chapter?
- 7 | A. Yes.
- 8 Q. Diagrams on how to insulate --
- 9 A. Yes, there are contained in the text very nice diagrams
  10 to help sailors and shipyard workers on how to install
- 11 insulation on various types of systems.
- 12 Q. So this -- we've labeled this permanent flange covers.
- 13 Is this a diagram that you selected from this chapter?
- 14 A. Yes. It's Figure 9390.9. And in this case this is a,
- 15 what you call low temperature, low pressure system.
- 16 And let me point out the -- here's the pipe coming
- 17 through. And they show both the upper and lower half. Here's
- 18 the two flanges for this particular pipe connection. And in
- 19 here would be the gaskets. And here's the bolts that hold it
- 20 together.
- 21 And as you can see, they've shown it diagrammatically.
- 22 To take this bolt out, you've got to have some space over
- 23 here. So when they put on the hard insulation, they brought
- 24 | it out to the pipe insulation out here. And this would have
- 25 to be removed and taken off so you could get the flange apart.

I think it's worthy to note that it's asbestos cloth on the outside here on the pipe. This is the asbestos cement.

And with cement -- finishing cement on the outside of it. And I said that finishing cement is Portland cement mixed in with it with which makes it very hard. You're not going to cut that with a razor knife.

On the inside, although not much pointed out on this diagram, the text if you read it points out this is packed with loose felt and the felt spec is the amosite felt.

- Q. All right. Is this another picture of fittings that is depicted in Chapter 9390?
- A. Yes. It's interesting that particular figure had survived since 1947 and here it is in the 1966 version. And I just made a -- compared one to 1972 and sure enough same drawing in 1972 in BuShips Technical Manual. So they like this drawing.

It's a T-pipe coming through here and up this way. We've got a flange on this end of the T, a flange over here on the T, and a flange up here. And as the diagram explains, we've got insulation felt packed around it. This is the amosite-containing stuff with finishing cement or just right on the outside of it.

Again, to work on this guy, you got to knock that stuff all off. But the bad news, once you get it off, you got all this fluffy stuff to deal with too before you can ever get to

- 1 | your flange.
- Q. Can you tell us about this picture. It looks like it
- 3 came from the Massachusetts.
- 4 A. Yes, it is from the Massachusetts. It's the drop leg on
- 5 | the deaerating feed tank. It's a big gate valve. There's a
- 6 | flange up here at the top. Flange is buried under the
- 7 insulation here. Here's the valve bonnet itself with its
- 8 bonnet gasket up here. And to gain access to this guy, it
- 9 looks like the insulator really did a good job of slicking it
- 10 | over with hard insulation. Got to take all that off if you
- 11 want to work on that valve. And then, of course, packed
- 12 | around it you've got the loose stuff.
- 13 Q. Well, and let me ask you about this picture here. Is
- 14 this also another example of the hard insulation?
- 15 A. Yes, it's another example of hard insulation. And that's
- 16 on the Massachusetts also. It's -- the valve -- here's the
- 17 big black valve wheel. The bonnet stands out a little bit
- 18 from the background. It had a flange over here, a flange down
- 19 here.
- To do maintenance on that valve, one would have to remove
- 21 | that insulation material as well as the loose material that's
- 22 packed in under it.
- 23 Q. All right. Now, let me ask you about this -- the
- 24 portable pads, though, that we saw on the other valve earlier.
- 25 Are there diagrams that talk about how to design or how to put

- those portable pads or flexible flange covers on?
- 2 A. Yes, sir. You -- this slide goes back to BuShips
- 3 Technical Manual, Chapter 9390, and it's Figure 7 from 9390.
- 4 Here we've got the center line of the pipe. Here's the
- 5 | piping sheet going through. Here's the flange, two flanges.
- 6 In here would be the gasket. Here's the piping insulation on
- 7 | it. And since they've got two different types listed, this is
- 8 probably a diagram for main steam because you got higher
- 9 temperature insulation next to the pipe and lower temperature
- on the outside. And then it's got asbestos cloth over the
- 11 outside.

- 12 Going over to the lagging cover, first you fill the
- 13 inside with a loose asbestos felt. And on the top of it
- 14 they've got a blanket that goes over and it's got asbestos
- 15 | cloth with -- this generally is filled with insulation felt as
- 16 it's stated up here. And this would be wrapped all the way
- around it. And this one is glued in place. It says asbestos
- 18 | cloth is stuck -- stuck on with adhesive right here. So this
- 19 could be removable probably with a razor knife and take off
- 20 and you can save it and then reinstall it later.
- 21 | Q. So you can -- this -- the purpose of these flexible
- 22 covers or portable covers is to be able to take them on and
- 23 off; is that correct?
- 24 A. Yes. So you don't have to remix cement and make a new
- 25 | hardening every time.

- Q. And so in that process, though, are these things -- how
- often can you reuse these covers?
- 3 A. Well, if you're lucky, maybe two or three times and then
- 4 they start getting pretty raggedy. They start falling apart.
- 5 And you may have to wait until you're in port at an industrial
- 6 | facility to get a new pad made for you.
- 7 0. All right. So when you take this off, it says packed
- 8 | with woven asbestos felt. You mentioned that. Is there a mil
- 9 spec that tells you about that asbestos felt, what it's made
- 10 of?
- 11 | A. Yes. Yes. It used to be 32F3, which everybody has
- 12 identified as amosite. And then it became the mil spec. Mil
- 13 | F15091. And it is asbestos-containing. And depending on
- 14 | manufacture, amosite was preferred, but I noticed Manville
- does put one out that has chrysotile in it.
- 16 Q. All right. Then you also mentioned ship drawings earlier
- 17 in your testimony. Is this a ship drawing that you
- 18 identified?
- 19 A. Yes, it is.
- 20 Q. It's for the 134 class cruisers. That's the heavy
- 21 cruisers. The U.S. built three of them during the war. There
- 22 was the Des Moines, the Salem, and the Newport News. And I
- 23 even operated the Newport News in '67 off the coast of -- '68
- off the coast of North Vietnam.
- But anyway, this is one of the ship's drawings. This

- 1 | diagram here --
- 2 Q. These diagrams look like similar diagrams to the
- 3 BuShips --
- 4 A. Oh, this diagram here is directly from BuShips Technical
- 5 | Manual, as well as this one is very similar to the BuShips
- 6 Technical Manual.
- 7 The drawing provides to the ship builder a table so that
- 8 he'll know how to make the cover for what different systems.
- 9 Now, the systems are listed over here: Main steam, aux steam.
- 10 | It's not very legible. Auxiliary 600-pound steam. There's
- 11 the various steam systems.
- 12 And with a known diameter -- well, this is the radius
- which is half the distance. You enter the table with the type
- of system and the radius and it will tell you exactly how to
- make your insulation pad. And you'll end up with one of these
- 16 ones that wraps around.
- 17 O. And so this is --
- 18 A. And the next slide.
- 19 Q. This is a blowup of that diagram?
- 20 A. Sure is. It's so you can see a little bit better detail
- 21 on it, and it kind of gives you some detail. I think --
- 22 here's the pipe again. Here's that radius I was talking
- 23 about, E. Inside here you got the two flanges. There's a
- 24 gasket in here. There's the bolt that's going to be taken
- 25 out.

And then in this particular diagram they think about the maintenance guy and give him a section of removable pipe cuttering. So once he takes off the lagging pad, this piece should come out. He'll set it aside and now he can get the bolts out. Packed around the inside, as we've seen on all the other ones. Again, this says -- at the time it was made in '4 -- I think this drawing was signed in '46 is when it was signed. Had loose amosite that he packed around it. Then you make a cover to go over the outside of it.

- Q. Now, we added the highlighting and the box, but the words are on the diagram itself; is that correct?
  - A. Oh, yeah. It appears when you see the highlighting on it somebody added that. That hadn't been added. That's on the drawing. Just highlighted what's on the drawing.
- Q. This is another photograph from the Massachusetts. Can you tell us what this depicts.
  - A. This depicts one of these removable pads on the inlet or outlet flanges on both sides of this big valve. See here?

    You can see the lacing. That could be cut. This lagging pad, as sailors call it, and I do, would come off. You do have loose material packed in under it as we've talked about. This cloth in here is asbestos cloth. Probably going to be wire inserted cloth on the inside to help hold it together. And then the valve itself was -- had hard insulation over it.

It's an inverted upside down valve.

- Q. So this valve has hard insulation and then also has the portable covers; is that correct?
  - A. Yes. You've got an example of both in the same picture.
- Q. All right. When you said that these valve covers can be removed a couple of three times, what happens to them? Why
- can't you keep using them over and over again like lacing up a
- 7 pair of tennis shoes?

- 8 A. Well, steam systems in ships, you know, operate -- you go
- 9 in and out of port. Heat up, cool down; heat up, cool down.
- 10 As they cool down they attract moisture to them. And as I
- 11 said, the wire inserted asbestos cloth on the inside starts
- 12 getting moisture in it and it starts rusting out the chicken
- 13 wire because that's what it is is chicken wire on the inside
- 14 of it, and it starts rusting out. So after two or three times
- 15 taking this on and off, straightening it out, chicken wire
- 16 | falls apart on it. So now you got insulation and pad that's
- 17 | not in very good condition. They just don't last real long.
- 18 Q. We've got, I think, one or two more diagrams. This looks
- 19 | like it's a valve. It's insulated in a similar way as the
- 20 flanges that we looked at.
- 21 A. Yeah, this is another one from 9390, and it's really
- 22 involved. There's -- all this stuff that's been highlighted
- 23 | for you is on the drawing. It's just so you can see it. In
- 24 | my opinion it's almost an overkill for all the different types
- 25 of materials in it.

Here's the center of the pipe. Here's the inlet/outlet 1 flanges. There's the bonnet of it or super structure with the 2 3 gasket up here. We start with filling it on the inside with the loose amosite asbestos. And then the insulation, the lagging pad can go up around it. It's made to be removable. And they've used in here eighth inch flexible asbestos board. 6 7 That's mil board, quarter inch. And then we've got cloth over the outside of it. And then it's got a lacing over the top of 8 9 it as we seen in that previous actual photograph. This is 10 what the lacing sort of looks like looking in plan view down from the top of it. That's a lot of work to make that guy. 11 12 Ο. And this one last diagram that we have, can you tell us 13 what this represents. 14 Well, it's -- this is pulled off that Salem-class cruiser 15 drawing. It's one big long drawing, and this is down at the 16 far end of it. Shows a pressure regulating valve. And it 17 shows a removable pad on it, again, filled with loose asbestos 18 around it. Then the cloth is made. And then these rings on it is just another type of way -- and it goes all the way 19 across it so that could be removable. You could reuse the pad 20

- 22 | Q. And that specifies "fill void spaces with loose amosite."
- 23 A. Yes, sir, that's right on the drawing.

if you wanted to or had to.

21

Q. Okay. Now, Captain Wasson, this is one photograph we have. Is this a portable pad or a flexible cover from the

- 1 | Massachusetts you identified?
- 2 A. Yes, it is. It's an angle stop. You see it's at an
- 3 angle there. And the insulation pad on the bonnet actually
- 4 covers the packing gland on it. These can be taken off. It's
- 5 | held both to the body blanket as well as where it's laced
- 6 along here, you can take all that off, even the one around the
- 7 | body, and it would give you access to the valve's flanges
- 8 after you clean all the loose amosite felt out of there.
- 9 Q. Okay. Captain Wasson, have you undertaken any study of
- 10 the BuShips Technical Manual to try to understand the types of
- fittings that would call for the portable pads versus the
- 12 permanent insulation?
- 13 A. Yes.
- 14 Q. Can you tell us what is -- what are the distinguishing
- characteristics between those systems where you would find
- 16 | hard insulation around a valve as opposed to the portable
- 17 pads?
- 18 A. Well, the 1966 edition, and I trace the words all the way
- 19 back to 1947, but the words are systems that are above
- 20 | 389 degrees and it's on main auxiliary, cut-out stops or
- 21 | flanges that might be opened up to take down for doing
- 22 maintenance. Those would be removable covers.
- 23 Then there's another section that says everything that's
- 24 | not included gets hard, would have the hard insulation on it.
- 25 | O. Would you expect to find the hard insulation around

- 1 | valves or fittings that called for compressed asbestos sheet
- 2 gaskets?
- 3 A. Yes, because they're the guys that are below 389 for
- 4 sure.
- 5 | Q. All right. Would you --
- 6 A. There's some exception to it too because you might have a
- 7 | section that's removed or something like that. But it's not a
- 8 | hard and fast rule; but in general low temperature, low
- 9 pressure: Hard insulation.
- 10 Q. All right. Captain Wasson, you've identified the steps
- or we asked you to identify the steps for maintaining a pipe
- 12 system and what you might have to go through, the steps, to
- 13 | replace a gasket; is that correct?
- 14 A. Yes.
- 15 | Q. And is this a list that you prepared?
- 16 A. This is my list. I didn't take this from anybody's book
- 17 or anyplace else.
- 18 Q. All right. So if someone, a shipyard worker or machinist
- 19 in the navy is going to replace a gasket, what are the steps
- 20 | that he would have to go through?
- 21 A. Well, the first is remove the insulation. And we've
- 22 talked about that in some length. We've discussed the
- 23 removable as well as the hard. This is the video of taking
- 24 the hard off which you actually seen earlier. This is what
- 25 you've got to go through to get the hard off.

If you're lucky and you got the removable kind, you cut
the wire, take the pad off, clean up the amosite or fluffy
stuff inside and get it set aside and you don't have to go
through this. Of course, the clean up after this is not fun

either.

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- Q. Well, in the machinery spaces aboard these ships,
  particularly on the larger ships, the aircraft carriers and
  such, are the engine rooms or the boiler rooms, are they one
  story, multi stories?
  - A. Generally two levels: Upper level, lower level. Upper level has grates you can see right down through. So if you're doing this untidy operation, knocking this off, it falls down on to the deck plates of the lower level. Now, the lower level is not a hundred percent deck plates, but most of it is. Solid deck plates.
    - Q. So back in the 1960s or 50s or historically during the rip out phase where there were not controls in the shipyards for asbestos insulation, how would -- is it possible that this work could be going on and people down below might get insulation on them?
- A. Yes, sir. I saw men on the Oriskany kind of had a little fluffy stuff all over them from what the shipyard was doing or one of their buddies was doing topside up in the upper level too. It's not a clean operation.
- 25 Q. All right. So this is insulation -- oh, I wanted to ask

- 1 you another question. The percentage of asbestos that's in
- 2 the pipe covering in insulation that was specified by the
- 3 | navy, are you familiar with that?
- 4 A. In general terms.
- 5 | Q. All right. Can you tell us what percentage of
- 6 asbestos --
- 7 A. The pipe covering was referred to as 85 percent mag or
- 8 | 15 percent asbestos.
- The amosite felt that I've talked a lot about, it had
- 10 cotton with it, but I do not know without looking at the spec
- 11 | the exact percentage. It was not completely asbestos. It's
- 12 asbestos-containing but it's not a hundred percent.
- 13 Q. Okay.
- 14 A. But the cements that we talk about, I don't know the
- 15 percentage on them.
- 16 Q. Okay. All right. Good. So the next step is -- you've
- 17 described is access to the gasket. You said the chain fall
- 18 method, the wood wedges. Can you tell us what this means.
- 19 A. Yeah, I'd like to talk about bolts because they're --
- 20 Q. Sorry, I missed the bolts, sure.
- 21 A. On the low pressure, low temperature systems, which we
- 22 saw a lot of bronze and brass valves in it, you've got a lot
- 23 of brass bolts. Easy to remove because they're corrosion
- 24 resistant as well as there's a lot of manila bolts, corrosion
- 25 resistant, as well as stainless steel bolts.

So on the low pressure, low temperature system bolt removal, in general it's pretty easy once you've cleaned off whatever happens to be on the outside of it.

The flexitallic systems are these high temperature, high pressure. And as I pointed out, they suck moisture back into them as they cool. The bolts get very, very rusty and often you have to use a cutting torch just to get the bolts out.

They're a mess.

So we got the bolts out. Now we got to get the gasket out.

- Q. Okay. So we have a video from Mr. Boelter's pipefitter exposure assessment that I wanted to ask you about. It looks like he's spreading the flange there with a flange spreader; is that correct?
- A. That's correct. That's a device I didn't have on board ship. It's really nice to have. Professional guys have it.

  We used the wooden wedges to separate the flanges.
- Q. Do you hammer in wooden wedges in between the --
  - A. Yes, that's what you did. If you got heavy wall pipe and you got to separate it to get a gasket out, if you're only doing the gasket, you got to get them separated some way, either wooden wedges or get a chain fall and put it on your system.
- Q. How far can you spread these flanges like this? Can you get them --

- 1 A. No more than an eighth or a quarter of an inch at the
- 2 very most. Quarter inch is probably stretching it. Because
- 3 the high pressure, high temperature systems, they're very
- 4 | inflexible. And if you put a permanent set on these guys, you
- 5 know, if you put a new gasket ain't going to help you. You
- 6 just created a new problem for yourself. So you've got to be
- 7 very careful on flange separation.
- 8 | Q. Well, why can't you just separate them by six inches or a
- 9 foot or something like that?
- 10 A. Because they're anchored everywhere. You can just barely
- 11 get them open enough to do the work.
- Now, in this case if you're going to take the complete
- 13 valve out, now you got access to the flange. Now you can
- 14 clean the flange up and see what you're doing a little better
- 15 rather than using a flashlight and using a mirror to do, which
- is often done if you're just replacing the gasket.
- 17 Q. So you're not going to get them far enough to even get a
- 18 | hand wire brush much less a big grinder.
- 19 A. No, no.
- 20 Q. And did you all use high speed electric grinders back in
- 21 the 1960s?
- 22 A. Absolutely not. It was forbidden to do that to any
- 23 | flange regardless of metal.
- 24 Q. So the next step's cleaning the flanges, locating a
- 25 replacement gasket, installing the new gasket, realigning the

- flange, replacing and retorque bolts. Is that your understanding?
- - A. Yes.

- Q. How much time does this type of technique -- can you give us a sense of the time and motion involved here.
  - A. Well, cleaning the flanges regardless of what was used on it is a very short -- it doesn't take long at all to clean the flanges.

Finding your gasket sometimes can be troublesome because you may end up having to make your compressed asbestos sheet gasket yourself. And you can only guess the trouble you can go to in trying to make one for flanges that have an eighth of an inch clearance. Probably better off to go ahead and pull the valve off and make the gasket. In making a compressed asbestos sheet gasket a couple of ways it was often done was put chalk on the flange, press your sheet gasket against it, take your impression off, take tin snips and cut around it, knife to cut the outside, punch your holes.

Or you might have one already made that you can put on there. If it's a flexitallic one, which we saw those. They come in various sizes. You get the right one, put the retainer ring on it so it centers the bolts and you put it in.

But in locating a gasket can be troublesome for you.

Once you got the gasket, your flanges are cleaned, just put it in there. Let your flanges go. Release them from

- whatever you have on it. They come back together. And then
  you retorque the bolts and put it back together. Now you get
  to reinsulate it.
  - Q. Okay. That's one of the last steps.

We have another video from Mr. Boelter's project of mixing a small bag of insulation. Now, on board ship, if you're replacing a gasket on a flange, would you be using a big bag or a small bag of insulating cement?

A. We only had small bags. I don't even know if they were 50 pounds. They may have been 25 pounds, more like it.

This would be the case where you got hard insulation to return on to your valve or flanges you took off. You got to get your loose insulation packed around it. That would be your amosite felt. And then you start spreading on your cement. Which as you can see mixing up the cement, it's a dusty operation. If you're mixing any concrete up for a post or something, you know when you dump it in, guess what? You got a lot of dust. If you add water to it, you get dust.

Q. All right.

- A. Once you get it mixed, though, now you you can start working with it and put it on.
- Q. Looks like there's water in the bottom of the bucket already.
- A. Yeah, but when it hits it, it makes dust, too, even though you got water there already.

- 1 Q. All right. And does this video fairly and accurately
- 2 represent what you saw when sailors would mix up small amounts
- of insulation and cement?
- 4 A. I saw my ship engineers do this on all ships.
- 5 Q. Then the last stage I believe you have of maintaining the
- 6 piping systems was clean up; is that correct?
- 7 A. Yes, sir.
- 8 Q. We have a little video. Is this the type of thing that
- 9 would be done on the lower deck plates?
- 10 A. Yeah. You had deck plates. The kids would sweep it up
- and put it in trash cans. Obviously, we didn't take on jobs
- 12 of this nature that had that much. We had just small, small
- amounts. But in the shippard where the shippard did it, yeah,
- 14 they made big messes and they weren't very tidy about cleaning
- 15 up. We ended up having to finish doing the rest of the work
- 16 for the shipyard.
- 17 Q. Okay. Thank you, Captain Wasson. I think you can take
- 18 the stand again.
- 19 (Witness resumed the witness stand.)
- Q. Captains Wasson, I'd like to show you a few documents if
- 21 | we could.
- 22 MR. HARRIS: Your Honor, may I approach?
- THE COURT: Yes.
- 24 Q. This first document I have handed you, Captain Wasson,
- 25 can you tell us what the name of the label is on the bottom of

- 1 it.
- 2 A. It is NavShips 0901 --
- 3 | Q. I'm sorry, the exhibit sticker, I'm sorry.
- 4 A. Oh, the exhibit sticker. GST15701.
- 5 Q. All right. And can you tell us what this document is.
- 6 A. It is Chapter 9390. It's a 1965 edition with the 1966
- 7 change which makes it the 1966 edition of Chapter 9390.
- 8 Q. Are you familiar with this document?
- 9 A. Yes, sir. It's the same one we were showing diagrams
- 10 from it on the screen just a moment ago.
- 11 Q. And is this a document that you identified and located
- 12 and used in connection with your report in this case?
- 13 | A. I did.
- 14 MR. HARRIS: Your Honor, at this point or at this
- time we offer this document, this exhibit --
- 16 THE COURT: All right.
- 17 MR. HARRIS: -- into evidence.
- 18 THE COURT: We'll admit it.
- MR. FINCH: No objection.
- 20 | (Debtors' Exhibit No. GST15701 was received into
- 21 evidence.)
- 22 | Q. Captain Wasson, I want to hand you a document we've
- 23 labeled GST15702. Can you tell us what this document is.
- 24 A. You read the document number correct on it. And it is
- 25 the 196 -- November '65 edition of NavShips Manual 9390. This

- 1 | is the 1965 edition prior to having the '66 change made to it.
- 2 Q. All right. This is a document that you have identified
- 3 and relied upon?
- 4 A. Yes.
- 5 Q. In your -- for your opinions?
- 6 A. Yes, it is.
- 7 MR. HARRIS: Your Honor, at this time we offer this
- 8 exhibit.
- 9 THE COURT: We'll admit it.
- MR. FINCH: No objection.
- THE COURT: What number was that again?
- 12 THE WITNESS: GST15702.
- 13 (Debtors' Exhibit No. GST15702 was received into
- 14 evidence.)
- Q. Captain Wasson, I'm handing you a document labeled
- 16 GST15 -- I'm sorry, GST13150A. Can you tell us what this
- 17 document is.
- 18 A. Yes. It's GST13150A, as in alpha. And it's entitled
- 19 Bureau Ships Specification for Felt Insulation Amosite
- 20 Asbestos," and it's dated 1 March 1937. And this is the spec
- 21 | for the amosite felt that we've been talking about.
- 22 O. That was labeled on the ship drawings we saw?
- 23 A. Yes, sir. Particularly the CA132 class heavy cruisers.
- 24 MR. HARRIS: At this time, Your Honor, we offer this
- 25 exhibit.

- 1 MR. FINCH: No objection to that, Your Honor.
- THE COURT: It's admitted.
- 3 (Debtors' Exhibit No. GST13150A was received into
- 4 evidence.)
- 5 Q. Captain Wasson, at this point I'm going to offer -- or
- show you a document that is marked as Exhibit GST13150B; is
- 7 | that correct?
- 8 A. Yes, GST13150B, as in bravo.
- 9 Q. And can you tell us what this document represents.
- 10 A. It is the old navy department specification for packing,
- 11 sheet, asbestos, compressed. And it's symbol 2150.
- 12 Q. And can you tell us is this a document that represents
- 13 the military specifications for the compressed asbestos sheet
- 14 | qaskets?
- 15 A. This is a forerunner to the mil spec.
- 16 Q. All right.
- 17 A. This is the navy spec and later on the mil spec got
- 18 issued.
- 19 Q. And is that part of this packet of documents, the
- 20 subsequent documents?
- 21 A. It may be. I haven't thumbed all the way through. It
- 22 looks like -- oh, yes. You've got the whole pedigree of the
- 23 document here as it changed over to another number.
- 24 MR. HARRIS: Okay. At this point, Your Honor, we
- 25 offer this exhibit into evidence.

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1
                MR. FINCH: No objection. Just -- just so we're
      clear, this is a composite of the various iterations of what
 2
 3
      became the mil spec; is that correct?
                MR. HARRIS: Yes.
                MR. FINCH: Okay. No objection, Your Honor.
                THE COURT: All right. It's admitted.
 6
                (Debtors' Exhibit No. GST13150B was received into
 7
      evidence.)
 8
                THE WITNESS: Looks like it's actually a federal
 9
10
      spec. I didn't thumb all the way. There's mil specs and
11
      federal specs, but it looks like a complete package for that.
12
      Ο.
          Okay. Captain Wasson, I think you cut the court off.
13
                THE COURT: We'll admit it.
14
                MR. HARRIS: Thank you, Your Honor.
                THE WITNESS: I'm sorry, Your Honor.
15
16
                THE COURT:
                            That's fine.
17
           Captain Wasson, I want to show you an excerpt from Dr.
18
      Longo's report. He's the expert witness designated by the
19
      committee. He makes a statement in his report that I just
20
      wanted to run through quickly. He's talking about portable
21
      pads that were used on ships.
22
           He says, "Examples of these portable pads can be seen in
23
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the attached photographs to this report that were taken by my group during our visit to the USS Lexington aircraft carrier in 2010. Every insulated valve that I observed on that ship

24

- 1 was covered with these types of portable pads."
- 2 Is that your recollection of what he said in his report?
- 3 A. Yes, sir.
- 4 Q. Now, did you go on board the Lexington after this?
- 5 A. I did, on April 29th.
- 6 Q. And did you take photographs of valves that you saw?
- 7 | A. I did.
- 8 Q. And are those valves -- are those photographs or some of
- 9 those photographs actually included here in your slide
- 10 presentation?
- 11 A. Yes, they are.
- 12 Q. So this is one that we saw earlier; is that correct?
- 13 A. Yes, sir. That was the first slide we showed and there's
- 14 | a case of hard insulation over a valve.
- 15 Q. Another example of hard insulation on the valve?
- 16 A. Yes, sir.
- 17 Q. Another example of hard insulation?
- 18 A. Yes, sir. Both flanges were under, the bonnet was not.
- 19 Q. More valve pictures --
- 20 A. The complete --
- 21 | O. -- of hard insulation?
- 22 A. Complete valve's under hard insulation.
- 23 Q. Another picture of a valve?
- 24 A. It's a valve -- it's under hard insulation. The packing
- 25 gland's partly visible there on it, though.

- 1 Q. Another valve?
- 2 A. That's another fire main valve that had hard insulation
- 3 over it back in, I think number four fire room.
- 4 Q. Another valve?
- 5 A. That's an LP drain that had hard insulation over its
- 6 flanges.
- 7 | Q. Another valve?
- 8 A. A supply valve -- I mean, not a supply valve, just a
- 9 valve.
- 10 | Q. Did you find plenty of valves on board the Lexington that
- 11 had hard insulation --
- 12 A. Yes, sir.
- 13 | Q. -- on them?
- 14 A. I found quite a few.
- 15 Q. Okay. You also looked at the valves where Dr. Longo had
- 16 | harvested those valves in 2010 that are included in his latest
- 17 | study; is that correct?
- 18 | A. Yes. Yes, I did.
- 19 Q. Can you tell us the types of systems that they were on.
- 20 A. Yes. They were on the constant and intermittent steam
- 21 and those two systems operate at about 50 pounds.
- 22 Q. Okay. More valve pictures. Do you know how many
- 23 | pictures you took before you stopped taking pictures of hard
- 24 insulated valves?
- 25 A. No, sir, I don't. Fifty or 60.

- 1 Q. Oh, but here's a portable pad on board the Lexington; is
- 2 that correct?
- 3 | A. Yes.
- 4 Q. And can you tell us about the condition of that pad.
- 5 A. Getting very tired. It's pretty obvious. The internals,
- 6 which is the amosite felt on the inside of it, is starting to
- 7 come out and the lacing on it had to be stretched to pull it
- 8 back together again.
- 9 I've got a correction, Mr. Harris, on Dr. Longo's valve.
- 10 | I said they were on constant and intermittent. He also pulled
- 11 out two down in the main engineering space, one in number two
- 12 fire room and one in number two engine room. Both of those
- were on the 150-pound system.
- 14 Q. So two were on the 150-pound and two were on the
- 15 50-pound?
- 16 A. There were three.
- 17 | O. Three?
- 18 A. Three on the 50-pound.
- 19 Q. Okay. Captain Wasson, I want to show you these
- 20 | photographs that you've just shown the court. I believe these
- 21 | are marked as GST15713 through GST15731; is that correct?
- 22 | A. Let's see 15713, 14, 15, 16, 17, 18, 19, 20, 21, 22, 2 --
- 23 I've got two 22s.
- 24 Q. Okay.
- 25 A. Two 22s.

- 1 Q. Would you mark the second one --
- 2 A. Twenty-four -- the second one should be 23. And I will
- 3 | just make that change myself on the second 22.
- 4 It reads 23 now. And we've got 24, 25, 26, 27, 28, 29,
- 5 30, and 31.
- 6 MR. HARRIS: Your Honor, at this time we offer those
- 7 photographs into evidence.
- 8 MR. FINCH: No objection.
- 9 THE COURT: All right. They're admitted.
- 10 (Debtors' Exhibits Nos. GST15713 through GST15731
- 11 | were received into evidence.)
- 12 MR. HARRIS: Thank you, Captain Wasson.
- 13 THE WITNESS: Thank you, Mr. Harris.
- 14 THE COURT: Mr. Finch.
- 15 CROSS EXAMINATION
- 16 BY MR. FINCH:
- 17 Q. Good afternoon again, Captain Wasson.
- 18 A. Good afternoon, Mr. Finch.
- 19 Q. You've worked for asbestos defendants in asbestos
- 20 litigation on more than 50 cases; is that right?
- 21 A. Yes, I have, sir.
- 22 | Q. You first started working for asbestos defendants in
- 23 | 2003; is that right? Thereabouts.
- 24 A. That's approximately correctly.
- 25 Q. The defendants you've worked for include Garlock at least

- 1 five or six times.
- 2 A. Yes, sir.
- 3 Q. Aurora Pump.
- 4 A. Yes.
- 5 Q. That's a company that makes pumps and valves that would
- 6 have either asbestos-containing packing or gaskets as part of
- 7 | the equipment, right?
- 8 A. I believe pumps only.
- 9 Q. Cleaver Brooks, that's an asbestos defendant you've done
- 10 | work for?
- 11 A. Yes, sir.
- 12 Q. That's a company that -- what do they make? Boilers,
- 13 right?
- 14 A. Boilers and evaporators.
- 15 Q. And the boilers would have both insulation on the
- 16 exterior and they would have -- sometimes they would have
- gaskets around pieces of machinery attached to the boiler,
- 18 | correct?
- 19 A. Their boilers had metal over the outside of them and
- 20 insulation under it.
- 21 Q. Okay. Elliott, what kind of -- that was an asbestos
- 22 defendant.
- 23 A. They made deaerating feed tanks. They made super
- 24 chargers.
- 25 O. Turbines.

- 1 A. Turbines.
- 2 | Q. And those turbines would have asbestos insulation
- 3 sometimes on or around them and sometimes the turbines would
- 4 have other asbestos components, correct?
- 5 A. That is correct, sir.
- 6 Q. You worked -- done work for Jerguson Valves, correct?
- 7 A. Yes, sir.
- 8 Q. And Jerguson Valves, they make valves obviously, right?
- 9 | A. Yes, sir.
- 10 | Q. And that would have asbestos components, either packing
- or gaskets on or around the valves, right?
- 12 A. Yes.
- 13 Q. You've also worked for a company called Mundet or Crown
- 14 | Cork & Seal, right?
- 15 A. Yes.
- 16 Q. Mundate is a company that made asbestos-containing
- 17 insulation, correct?
- 18 | A. Yes, sir.
- 19 Q. And you've also done at least one case for Bondex, right?
- 20 A. Yes.
- 21 Q. You've never testified for an individual sailor or anyone
- 22 else that has mesothelioma who was bringing a lawsuit,
- 23 | correct?
- 24 A. No, but I was asked.
- Q. But you've never -- you've never appeared in a courtroom

- and testified on behalf of a victim, right?
- 2 A. No, I did not.
- 3 | Q. You spend about six to eight hundred hours a year on
- 4 asbestos litigation.
- 5 A. Yeah, a little bit less than eight, but somewhere in that
- 6 vicinity.
- 7 Q. Okay. And you spent at least as of the time of your
- 8 deposition, you've spent about 300 hours working on the
- 9 Garlock case, this case?
- 10 A. Yes, sir. We're up a little higher than that now.
- 11 Q. Okay. So your bill in this case is about a hundred
- 12 | thousand dollars; isn't that right?
- 13 A. Yes, sir, if you add it all up.
- 14 Q. Let me ask you some questions about your background and
- 15 experience.
- 16 In this crude drawing I've got land and I've got water.
- 17 Do you see that?
- 18 | A. Yes, sir.
- 19 Q. Okay. Is it fair to say that you don't have any personal
- 20 experience with the use of asbestos-containing products
- 21 whether they're gaskets or insulation or anything else for
- 22 industrial facilities on the land?
- 23 A. No, I do not.
- 24 | Q. Okay. So that would include power plants, steel mills,
- 25 industrial facilities. You don't have any experience at all

- 1 | with that, correct?
- 2 A. No, I do not.
- 3 Q. And Garlock sold asbestos-containing sheet gaskets to be
- 4 | used in those kind of facilities. You do know that, correct?
- 5 A. It's an assumption I've got to make. It's reasonable. I
- 6 haven't researched that. I don't know.
- 7 | Q. Okay. You wouldn't be able to dispute it if I were to
- 8 tell you that, right?
- 9 A. No, I wouldn't.
- 10 | Q. And so you don't know how many millions or tens of
- 11 millions of sheet gaskets Garlock would have sold to be used
- 12 on the land, correct?
- 13 A. No.
- 14 Q. Okay. You also likewise don't know what trades or what
- 15 | types of jobs people would -- job titles people would have for
- 16 changing gaskets or working with gaskets or even working with
- insulation in land based facilities, correct?
- 18 A. No, sir, that's not an area of my experience.
- 19 Q. Okay. Now, on the water, is it fair to say that the
- 20 vast, vast majority of your experience relates to the United
- 21 | States Navy, correct?
- 22 A. Yes, sir.
- 23 Q. Okay. You're aware that there are boats owned by
- 24 | civilian companies, right?
- 25 A. Yes, sir.

- 1 Q. Merchant Marine owns ships, right?
- 2 A. Yes, sir.
- 3 \ Q. There are lots and lots and lots of boats on the water
- 4 | that aren't owned by the United States Navy, correct?
- 5 A. That's correct.
- 6 Q. You don't have any personal experience with the use of
- 7 gaskets and the tools used to remove gaskets on civilian
- 8 boats, correct?
- 9 A. I've been involved in the conversion of one ship, but it
- 10 was Russian owned so, no.
- 11 | Q. Okay. So you would -- it would be fair to say that your
- 12 experience in terms of the trades that would have worked on
- asbestos-containing gaskets or for things that were on the
- water would be pretty much entirely navy ships, right?
- 15 A. Yes, sir.
- 16 Q. And the tools and methods would be pretty much entirely
- 17 | navy ships, right?
- 18 A. Yes.
- 19 Q. Okay. And is it fair to say that most of your hands on
- 20 eyeball experience in the navy involved ships at sea?
- 21 A. No.
- 22 Q. Well, you spent a lot of time on ships at sea, correct?
- 23 A. Yes, sir.
- $24 \mid Q$ . Okay. Let me ask you, it was never your job to tell the
- 25 navy or any part of the navy how to comply with OSHA

- 1 regulations in removing gaskets, right?
- 2 A. No.
- 3 | Q. Okay. And you don't know how many asbestos-containing
- 4 | sheet gaskets Garlock sold the navy, do you?
- 5 A. No.
- 6 Q. You talked a little bit about -- for purposes of the
- 7 record, Your Honor, can I -- I'm going to mark this as ACC
- 8 Demonstrative Exhibit Number 1.
- 9 THE COURT: All right.
- 10 MR. FINCH: It's not for substantive evidence. It's
- 11 just so Your Honor will have this little drawing.
- 12 Q. You talked on direct examination about where sheet
- gaskets were used and I believe you said -- you called it low
- 14 | pressure, low temperature, right?
- 15 A. Yes, sir.
- 16 Q. Now, the pressures and temperatures, some of those
- applications were temperatures as high as 425 degrees,
- 18 | correct?
- 19 A. That's the temperature that the gasket is rated for use.
- 20 The 100 PSI you can't get to 425.
- 21 Q. You can get to 225, 250, right?
- 22 A. Yeah, it's the saturation temperature.
- 23 Q. Okay. So you could have a gasket at 150 PSI and
- 24 200 degrees.
- 25 A. Yes.

- 1 | Q. And you could burn yourself if you touch a pipe that has
- 2 something going through it at 200 degrees.
- 3 A. Yes, you would.
- 4 Q. You talked about the -- just get something real clear.
- 5 Am I correct that you personally have only removed a gasket
- 6 | from a flange five or six times?
- 7 A. I've not done it that many times.
- 8 Q. You have not done it that many times.
- 9 A. No. I've observed it hundreds of times and probably
- 10 | three or four I've helped take one out.
- 11 Q. Okay.
- 12 A. Maybe five or six is on the high side. That's an
- 13 estimate. It just sounds high when you say five or six.
- 14 Q. Okay. All right. So it's less than five or six times?
- 15 A. Yeah.
- 16 Q. You would expect a pipefitter to have changed gaskets
- 17 hundreds to thousands of times in their career, correct?
- 18 A. Maybe hundreds. Not thousands, though. It's more than a
- 19 lifetime.
- 20 Q. Even in your experience you did see sheet gaskets stick
- 21 to flanges, correct?
- 22 A. Repeat your question.
- 23 Q. In your experience, sometimes you saw sheet gaskets stick
- 24 to flanges, correct?
- 25 A. Yes.

- 1 | Q. And you had to use -- you saw people using scrapers and
- wire brushes to remove the gasket residue from the flange.
- 3 A. Generally a putty knife or a piece of smashed copper to
- 4 scratch it off. Wire brush was the exception.
- 5 Q. You're not saying that sailors never used -- or let me
- 6 make the question broader. You're not saying that no one ever
- 7 used a power grinder to remove a gasket from a flange, are
- 8 you, sir?
- 9 A. In my experience I never saw that.
- 10 | Q. But you're not saying that people didn't do it.
- 11 A. I have not seen that done and all my chiefs and first
- 12 class, everybody don't do that. That was not something that
- 13 the navy subscribed to ever.
- 14 Q. Are you familiar with the regulations from the Norfolk
- 15 Naval Shipyard in 1991 that told people not to use power tools
- 16 to remove gaskets from flanges?
- 17 A. I'm not familiar with that, but I know they implemented
- 18 | something like that as an asbestos abatement procedure in that
- 19 shipyard.
- Q. In that shipyard in the late '80s, early '90s.
- 21 A. Yes, sir, the late time framework.
- 22 | Q. Okay. That gets me to an interesting point. Before I
- 23 get there, you talked about portable pads and you showed the
- 24 judge some pictures of portable pads, right?
- 25 A. Yes, sir.

- 1 | Q. And would you agree with me that whether or not someone
- 2 | had to use a hammer to beat asbestos insulation off of a pipe
- 3 | to get to a flange is going to depend on the facts and
- 4 circumstances of that individual person's situation?
- 5 A. I don't understand your question.
- 6 Q. Well, you would agree with me that if somebody had to
- 7 remove insulation from a flange in 1975, it may or may not be
- 8 asbestos-containing insulation they had to remove, correct?
- 9 A. That is true.
- 10 | Q. Okay. And you would agree with me that if somebody had
- 11 | to remove asbestos insulation from a flange, they may or may
- 12 | not have had to use -- to remove a portable pad. Sometimes it
- 13 might have been hard cement sometimes it was a portable pad,
- 14 right?
- 15 A. Yeah, if you put both portable and hard in the same
- 16 statement, yes, the portable one would come off. The hard
- one, you're going to have to knock it off some way.
- 18 Q. And sometimes all you would have to do was remove the
- 19 portable pad, right?
- 20 A. When you got a portable pad, you remove the portable pad.
- 21 Q. Okay. Now, 1972 OSHA passed regulations dealing with
- 22 asbestos thermal insulation, right? You're generally familiar
- 23 | with that?
- 24 A. I'm not familiar with OSHA, sir.
- 25 | Q. You're familiar with the navy started paying attention to

- controls for asbestos insulation beginning in the 19 -- the
- 2 early to mid 1970s.
- 3 A. Yes, sir, I'm familiar with the change to the Bureau
- 4 | Ships Technical Manual in '72 that placed controls on the
- 5 handling of asbestos-containing materials.
- 6 Q. Okay. And by 1975, the navy was trying to not have any
- 7 asbestos insulation put on new ships, correct?
- 8 A. Yes, sir.
- 9 Q. And that was true even in the '72 to '75 time frame, they
- 10 were telling the builders of ships let's try to get away from
- asbestos insulation and use something else, right?
- 12 A. That's correct. That was a transition period.
- 13 Q. Okay. And while you might have found some asbestos
- 14 insulation, put it on a ship that was being built in 1974,
- 15 | 1975, the goal was to not have it in there, correct?
- 16 A. Yes, sir.
- 17 Q. Okay. Asbestos-containing gaskets continued to be sold
- 18 to the navy well up into the 1990s, correct?
- 19 A. And beyond as far as -- I have no experience beyond '90
- 20 when I left the navy.
- 21 Q. Okay. So at least until the time you quit,
- 22 asbestos-containing gaskets were being sold to the navy and
- 23 everywhere else by Garlock as far as you know.
- 24 | A. Or any other company, far as that goes.
- 25 Q. Okay. You would agree with me that at least by here,

- 1 | there would have been controls in place for asbestos
- 2 insulation so that you -- I think you -- I think you said on
- 3 direct examination they started paying attention to that and
- 4 | they would put up like barriers, negative air barriers to keep
- 5 asbestos dust from -- insulation work away from other people,
- 6 right?
- 7 A. That's what's set forth in the NavShips Technical Manual.
- 8 Q. Okay. And there weren't any kind of similar controls
- 9 relating to gaskets until what you just told me about the late
- 10 '80s, right?
- 11 A. I don't know of any other than the one you mentioned from
- 12 | Norfolk which is '91 which is beyond my time in the navy,
- 13 actually.
- 14 O. Okay. So let's talk about the time frame 1975 to 1990.
- 15 Can we talk about that, sir?
- 16 A. Certainly.
- Q. Okay. If somebody had to do gasket work, change gaskets
- in 1980, there would be controls in place to limit or
- 19 eliminate the asbestos exposure from insulation, correct?
- 20 A. Yes, there would.
- 21 | Q. There wouldn't have been any controls in place for
- 22 gaskets during that time frame, correct?
- 23 A. There were none required then.
- 24 Q. So, you would agree with me, in the circle number one,
- 25 there are going to be lots of people. You don't know how many

- 1 | people that would have done work with gaskets with no
- 2 controls, but the insulation exposures would have been
- 3 controlled, right?
- 4 A. Yes, sir.
- 5 Q. Okay. And do you know how many tens of thousands,
- 6 hundreds of thousands, millions of people would have been
- 7 involved in that? You have no idea.
- 8 A. I have no idea. I wouldn't want to quantify it as you
- 9 have.
- 10 | Q. Okay. And there's going to be testimony in this case
- 11 | that the median latency period for mesothelioma is about 35
- 12 years. That means half of the cases, the first exposure was
- more than 35 years ago; half the cases, the exposure was less
- 14 | than 35 years ago. You're familiar generally with the concept
- of latency for mesothelioma, right?
- 16 A. Yes, sir.
- 17 Q. Okay. How many years is between 1975 and 2010?
- 18 A. Twenty-five years. Wait a minute. I left ten off.
- 19 Thirty-five years.
- 20 Q. Thirty-five years. Finally, and I'll mark this as --
- 21 Your Honor as ACC Demonstrative Exhibit Number 2 for
- demonstrative purposes, what I just drew up here.
- 23 THE COURT: All right.
- 24 | Q. This is -- you attached to your report your resume and a
- 25 | list of cases in which you have testified; is that right,

- 1 | Captain Wasson?
- 2 A. Yes, sir.
- 3 | Q. And one of the ships you served on was the USS Belleau
- 4 Wood; is that right?
- 5 A. I didn't serve on the ship, sir.
- 6 Q. You were a program manager and ship superintendent for
- 7 | the USS Belleau Wood; is that right?
- 8 A. Yes. That was while I was in the Long Beach Shipyard.
- 9 Q. And that ship was named after a battle in France that
- 10 | took place in World War I, right?
- 11 A. That's correct.
- 12 Q. And it was actually spelled B-e-l-l-e-a-u Wood. That's
- 13 how the name of the ship is spelled?
- 14 A. I'm not noted for spelling correctly, but it doesn't
- 15 change the content of my resume.
- 16 Q. And in your list of testimony, you've got a couple of
- 17 references to the Supermen Court of the State of New York. I
- 18 just saw the Superman movie with my family last weekend. It's
- 19 not a great movie. But you meant to say superior court,
- 20 | right, Captain Wasson?
- 21 A. Yes, sir. But again, it doesn't change the content. I
- 22 | think you know what it was.
- 23 | Q. I'm not holding it against you at all. You've got about
- 24 a thousand words in your resume. And anybody can make a small
- 25 | number of mistakes; isn't that right?

- 1 A. One tries not to.
- Q. But there's no such thing as perfection in this world;
- 3 isn't that true, sir?
- 4 A. Yes, there is.
- 5 Q. Well, human beings are -- the people who wrote -- the guy
- 6 who wrote the good book might be perfect, but human beings are
- 7 | not perfect. Do you agree with that?
- 8 A. On occasion we're not.
- 9 Q. And so in your work in testifying, you listed about seven
- 10 or eight trials up there; is that correct, Captain Wasson?
- 11 A. Ten or eight what?
- 12 Q. Trials. You got -- "I provided trial testimonies in the
- following cases, " and you've got one, two, three, four, five,
- 14 | six, seven, eight cases.
- 15 A. Eight cases.
- 16 Q. Okay. And in those cases, there were depositions of the
- 17 plaintiff and his co-worker often.
- 18 A. Yes, there were.
- 19 Q. And some of those depositions, particularly in California
- 20 cases, there might be 10, 15 volumes of transcript where the
- 21 | mesothelioma victim was asked questions for ten or eleven
- 22 straight days about what he did, right?
- 23 A. Yes, sir.
- 24 | Q. And some of -- and in all those cases, you would -- not
- 25 all, but you would generally have the ship specifications for

- 1 | whatever ship -- ship or ships the sailor or the plaintiff was
- 2 serving on, correct?
- 3 A. Yes, sir.
- 4 | Q. And you would come in and testify in a court of law,
- 5 correct?
- 6 A. Yes, sir.
- 7 | Q. And who would you -- who would you be talking to? You
- 8 | wouldn't be talking just to a judge. Wouldn't there be people
- 9 in a jury box?
- 10 A. Yes, sir, there was a jury.
- 11 Q. And you wouldn't come in and say that sailors were lying
- 12 if they said they used power tools to remove asbestos sheet
- gaskets, would you? You wouldn't tell the jury that this man
- 14 | is lying, this sailor is lying.
- 15 A. No, sir, that's not what I would say. I would say in my
- 16 | experience I have not seen that done.
- 17 Q. Okay. But -- and at the end of the day, who gets to
- 18 decide whether the mesothelioma victim is telling the truth or
- 19 not? You or those people in the box?
- 20 A. The jury does, I believe, sir.
- 21 MR. FINCH: Okay. That's all the questions I have,
- 22 Your Honor.
- 23 CROSS EXAMINATION
- 24 BY MR. GUY:
- 25 Q. Captain Wasson, Jonathan Guy for the FCR.

- 1 A. Jonathan Guy?
- 2 O. Yes, sir.
- 3 A. Yes, sir. You asked me questions during my deposition.
- 4 Q. Yes, sir. And first I wanted to thank you for your
- 5 service.

- 6 I have a couple of brief questions.
- Would you say that you're familiar with the

  asbestos-containing products that are used on navy ships for
- 10 A. Yes, I've looked at the specifications on them. I have not committed them to memory.

the period that you had experience with them?

- Q. But you would be able to share your expertise as to the identification of the asbestos-containing products or the different types of asbestos-containing products on the navy
- ships with Garlock, correct?
- 16 A. I believe I can.
- Q. And you shared that expertise with Garlock when you were acting on behalf of them as an expert witness, correct?
- 19 A. Yes, I did.
- Q. Did you ever come into contact with a Garlock product during all your years in the U.S. Navy?
- A. You know, I've been asked that question before and I probably did, but I do not have a specific memory of it.
- Q. Captain Wasson, it's not your opinion that the removal of asbestos-containing gaskets does or does not release asbestos,

- 1 | correct?
- 2 A. In my experience in removing them, what I have seen, I've
- 3 not observed any dust.
- 4 Q. I want to specifically ask you about your opinion about
- 5 asbestos, though, because you're not an epidemiologist,
- 6 | correct?
- 7 A. Correct.
- 8 Q. Do you recall reading your transcript of your deposition?
- 9 A. Yes, I do.
- 10 Q. Do you recall that I asked you whether you had an opinion
- or not as to whether work around asbestos-containing gaskets
- releases asbestos fibers rather than just dust?
- 13 A. I don't recall that, but I believe I could answer still.
- 14 | I probably couldn't see it.
- 15 | Q. Well, let me ask you the question very specifically. I'm
- 16 | not asking you about dust. I'm asking you about asbestos
- 17 | fibers. Is it your opinion that work around
- 18 asbestos-containing gaskets does or does not release asbestos
- 19 fibers?
- 20 A. My opinion is no.
- 21 | Q. I'm just going to pull up your transcript, sir.
- 22 Pull up page 76, please.
- 23 Captain Wasson, you just touched upon this in answers to
- 24 questions that Mr. Finch posed to you. You're aware of
- 25 situations where workers removed gaskets post-1972 that

- 1 contained asbestos where no asbestos insulation was present,
- 2 | correct?
- 3 A. When you say post, you mean prior to '72?
- 4 | O. Post '72?
- 5 A. After '72. Yes. It continued on during my tour of duty.
- 6 Q. And you said in answer to my question about that, you
- 7 | said, "Yes, I saw that type of work being done." Can you read
- 8 that, sir?
- 9 A. Yes, sir, I saw that type of work being performed.
- 10 Q. So we've got asbestos-containing gaskets but we have no
- 11 | asbestos-containing insulation, correct?
- 12 A. Well, post '72 does not mean you didn't have asbestos
- 13 insulation because those ships continued to operate, some of
- 14 them. Take the -- the Lexington went to 1991. The Kitty Hawk
- 15 to 2009. So one never knows for sure that it's not
- 16 asbestos-containing. In general should not be.
- 17 Q. And in answer to your statement that you had seen that
- 18 type of work being done, namely removal of asbestos-containing
- 19 gaskets with no asbestos-containing insulation present. I
- asked, "And your testimony would be the same in terms of in
- 21 | those situations you didn't see any visible dust, correct?"
- 22 Do you remember that?
- 23 A. Let's pull it up and look at it.
- 24 | "And your testimony would be the same in terms of in
- 25 | those situations you didn't see any visible dust."

- I don't think I understand the new question you're asking
- 2 me.
- 3 Q. It's your testimony, sir, that the removal of gaskets
- 4 doesn't create lots of dust, correct?
- 5 A. Not that I could see.
- 6 Q. And my question to you was, "But you couldn't testify as
- 7 to whether there was any asbestos-containing dust in the
- 8 environment, correct?"
- 9 A. True, because I can't see that.
- 10 Q. Right.
- 11 A. Yes.
- 12 Q. And you're not an epidemiologist, correct?
- 13 A. No, my answer is none whatsoever. I mean, I couldn't say
- 14 that.
- 15 Q. In fact, you said --
- 16 A. Or I believe that's what I was saying.
- 17 Q. In fact, you say, "No, sir, that's not an area that I
- 18 have expertise in, " correct?
- 19 A. Yes.
- 20 Q. So you're not testifying to the court as to whether
- 21 asbestos fibers are released, yes or no, that you can't see
- 22 when a worker is removing or installing an asbestos-containing
- 23 gasket, correct?
- 24 | A. No, that's not what I'm saying. I'm saying that when I
- saw the work done or I did it, I didn't see anything.

MR. GUY: Thank you, Captain Wasson. 1 THE COURT: Anything else, Mr. Harris? 2 3 MR. HARRIS: First, Your Honor, if I could offer the Mil Standard 777. I identified that. 4 THE COURT: All right. We'll admit that. (Debtors' Exhibit No. \_\_\_ was received into 6 7 evidence.) MR. HARRIS: May I approach the witness? 8 THE COURT: Yes. 9 10 REDIRECT EXAMINATION BY MR. HARRIS: 11 12 Q. Captain Wasson, I'm handing you documents that have been 13 marked. Let me show you this. GST14780, and GST14781, and GST14782, and GST14783, and GST14784, and GST14785. Can you 14 tell us what those exhibits represent. 15 I believe the 85 one is the 1960 -- no, it's a 1986 edition of Mil Standard 777. 17 The 84 Exhibit Number is the April of '79 edition of Mil 18 Standard 777. 19 2.0 The 83 exhibit is the 1971 edition of Mil Standard 777. And the 82 is the 1968 edition of Mil Standard 777. 21 The Exhibit 81 is the 1966 edition of Mil Standard 777. 22 And the last exhibit, 80, is the 1962 edition of Mil 23 24 Standard 777.

Q. And are these the mil standards that you reviewed in

- 1 connection with your report for this case where you identified
- 2 the types of gaskets that were used on the different systems
- and the different types of metals that were used on the
- 4 | flanges and fittings?
- 5 A. Yes, sir. I reviewed all six volumes.
- 6 Q. All right. And this is -- this was the mil standard that
- 7 | the navy used beginning in 1961. Is that what you said?
- 8 A. '62.
- 9 0. '62.
- 10 A. Is when they first started being used.
- MR. HARRIS: Your Honor, at this time we offer these
- exhibits of Mil Standard 777 from 1962 to, I believe, 1986.
- 13 MR. FINCH: No objection, Your Honor.
- 14 THE COURT: They're admitted.
- 15 (Debtors' Exhibits Nos. GST14780 through GST14785
- 16 | were received into evidence.)
- 17 Q. Captain Wasson, you were asked about your consultation on
- 18 cross examination by Mr. Finch about different defendants that
- 19 you've consulted for. And I think you mentioned that you were
- asked to consult with a plaintiff's lawyer or plaintiff's firm
- 21 at one point; is that correct?
- 22 A. Yes, I was.
- 23 | Q. Was that -- can you tell us the name of the law firm that
- 24 consulted you as an expert witness on matters involving the
- 25 navy.

Α. Yes. 1 Who was the name of that firm? Q. 3 Α. It was Waters and Kraus and it was the late Ron Edding. MR. HARRIS: Thank you, Captain Wasson. 4 THE COURT: Anything else? (No response.) 6 7 THE COURT: All right. I think you can step down. Thank you, Captain Wasson. 8 MR. FINCH: Your Honor, should I just hand up the 9 10 demonstrative? THE COURT: Yes. 11 12 You can step down Captain Wasson. 13 THE WITNESS: Thank you, Your Honor. 14 (Witness stepped down.) (Documents were tendered to the court.) 15 16 THE COURT: It's quarter of 5:00. Do you want to 17 start anything else? MR. SCHACHTER: Your Honor, our next witness is --18 19 this is Cary Schachter speaking -- is Dr. David Garabrant. If 20 the court wants to begin, we'd be glad to start him. 21 THE COURT: I'd say let's begin it and go to 5:15 or so. We'll have to guit then. 22 23 MR. SCHACHTER: Thank you, Your Honor. 24 MR. FINCH: My colleague, Mr. Jonathan George, is

going to handle the cross examination of Dr. Garabrant.

1 THE COURT: All right.

2 DAVID HAY GARABRANT,

- 3 being first duly sworn, was examined and testified as follows:
- 4 DIRECT EXAMINATION
- 5 BY MR. SCHACHTER:
- 6 Q. Good afternoon, Dr. Garabrant. Would you please
- 7 introduce yourself to the court.
- 8 A. Good afternoon. I'm David Hay Garabrant.
- 9 Q. You may need to move the microphone a little closer.
- 10 A. Is that better?
- 11 Q. And, sir, what is your medical area of specialty?
- 12 A. I am a physician in occupational medicine and I also am
- 13 an epidemiologist.
- 14 Q. And the area in which you have taught and researched and
- 15 | published in the peer reviewed literature is what, sir?
- 16 A. It's principally in the area of occupational and
- 17 environmental epidemiology, largely focusing on occupational
- 18 | cancer epidemiology.
- 19 Q. Captain Wasson has just provided the court with an
- 20 introduction to the various asbestos-containing materials,
- 21 | some of which are at issue in this case. Will you be able to
- 22 help us understand the various occupations that may have
- 23 worked with some of those products and the relative risks of
- 24 | mesothelioma in those occupations?
- 25 A. Yes.

- Q. Let's go through briefly your background so you can -- what did you do?
- Okay. First of all, you're certified in what fields,

  board certified in what fields?
- 5 A. I'm board certified in internal medicine, preventive 6 medicine, and occupational medicine.
- Q. And it says you're a fellow of the American College of
  Preventive Medicine and American College of Occupational and
  Environmental Medicine. What are those, sir?
- 10 A. Those are professional organizations or professional societies in preventive medicine and in occupational medicine.
  - Q. Could you briefly tell us about your undergraduate and graduate education in medicine, sir.

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A. Yes. I received my undergraduate degree in chemical engineering from Tufts University in 1972. I received my doctor of medicine degree from Tufts in 1976.

Upon completing my medical education, I trained four or five years. First at Georgetown University Hospital in Washington, DC, for two years in internal medicine. Then I went to the Harvard School of Public Health in Boston. I trained in occupational medicine for two years and received a master of public health degree and a master of science and physiology.

I then completed my senior year of residency in internal medicine at Boston University Hospital in 1981.

- 1 Q. Sir, I see that after your internal medicine fellowship,
- 2 | that's when you went into occupational medicine and
- 3 | epidemiology; is that correct?
- 4 A. That's correct.
- 5 | Q. What was it that caused you to decide to become an
- 6 | epidemiologist?
- A. When I was a resident in internal medicine, I had the
- 8 observation that we were spending a tremendous amount of time
- and effort to help -- to save people's lives at the very end
- 10 of long diseases and I wanted very much to learn how to
- 11 prevent disease and to intervene very early on in the disease
- 12 course rather than at the end; and I thought that what we were
- 13 doing was not a good use of time compared to trying to do
- 14 | something more effective to prevent disease. Was very
- 15 interested in both cancer and respiratory disease. And I
- 16 wanted to go back to public health school to learn about the
- 17 causes of disease and disease prevention.
- 18 Q. After getting that training, did you embark upon a rather
- 19 long professional career where you pursued those objectives?
- 20 A. I've spent my entire career doing exactly those things,
- 21 yes.
- 22 | O. Academically, very briefly, what positions have you held,
- 23 sir?
- 24 A. Well, when I finished my training, I was asked to join
- 25 the faculty at the University of Southern California School of

Medicine. USC had then, and still has, one of the premier groups in doing cancer epidemiology research. I was at USC for seven years. I was promoted to tenure in 1988.

I was then recruited to the University of Michigan in 1988 to head the occupational medicine program, which I did for six years.

Then I also took on leadership of the occupational health program which included occupational medicine and industrial hygiene.

I became the Director of the Center for Occupational Health and Safety Engineering which then encompassed five disciplines: Occupational medicine, industrial hygiene, ergonomics, safety engineering, and occupational health nursing.

I initiated and ran the occupational and environmental epidemiology program.

And with my colleague Martin Philbert, I founded the Risk Science Center.

In 2007 I took emeritus status, meaning that I stepped down from the tenured faculty and the regents of the university granted me emeritus status in recognition of my service to the university.

- Q. And after you retired with the emeritus status, did you go off into the sunset or have you done other things?
- A. No, I truly actually continued doing the same things I

- 1 | was doing prior to retiring. I still had an active research
- 2 program so I was still at the university, at first full-time
- 3 and then finally tailed that off in January of this year. And
- 4 I've also been running my own consulting business.
- 5 | Q. And in the course of that consulting, have you been
- 6 called upon to share your knowledge of the data dealing with
- 7 | the epidemiology of asbestos diseases with courts and juries
- 8 over the years?
- 9 A. Yes, I have.
- 10 | Q. Have you published widely in the academic literature?
- 11 | A. I've published about 200 articles in the peer reviewed
- 12 | literature. If you add book chapters, letters to the editor,
- abstracts, it's probably about 350.
- 14 Q. And have you published on the subject of asbestos disease
- and specifically mesothelioma?
- 16 A. Yes, I have.
- 17 Q. During the course of your career, have you received
- 18 | funding grants from public health agencies that fund research
- 19 or training programs?
- 20 A. Yes. I've received funding from the National Institute
- 21 of Health, the National Cancer Institute, NIOSH, the National
- 22 Institute for Environmental Health Sciences, the American
- 23 Cancer Society, the State of California, and other nonprofit
- 24 governmental and private foundations.
- 25 | Q. And we just listed here on your slide a few of some of

- 1 the agency grants that you've been privileged to work on; is that correct? 2
- 3 Α. Yes.
- Sir, on issues important to worker health, have any organizations that represent workers called upon you to perform epidemiological research?
- 7 Α. Yes.

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- And can you tell us about that.
  - I've done three studies for the United Auto Α. Workers and Ford Motor Company, National Joint Committee on Health and Safety. UAW and Ford for many years have had in their master contract an agreement to set aside funds for every hour worked by UAW members into a health and safety fund, some of which is used for research projects. I've been the principal investigator on three of those.

The first was a mortality study of transmission and chassis workers and stamping plant workers that involved about 53,000 UAW members.

The second was a case control study of leukemia and lymphoma among transmission and chassis workers at the Sharonville, Ohio, plant essentially working up a cancer cluster that the workers were concerned about.

And the third was a case control study of lung cancer among UAW and Ford employees in two of their assembly plants that I did with Elizabeth Delzell at the University of

- 1 Alabama.
- 2 Q. So for each of these projects, were you approved by the
- 3 UAW to be the person to conduct this research?
- 4 A. I believe it's fair to say I was asked jointly by the UAW
- 5 and Ford to do the work after writing a grant proposal for how
- 6 | I would conduct the studies.
- 7 | Q. Sir, have you maintained a clinical practice of medicine
- 8 during your career?
- 9 A. I practiced medicine from the time I was an intern
- 10 | throughout my academic career until two years ago I decided to
- 11 stop seeing patients.
- 12 Q. And in the course of that clinical practice, did you ever
- 13 | participate in litigation or administrative proceedings in
- 14 which workers were seeking compensation for illnesses or
- 15 | injuries?
- 16 A. Well, part of my practice was seeing patients in worker's
- 17 compensation proceedings in my occupational medicine clinic.
- 18 And I routinely testified on behalf of patients I had seen who
- 19 I felt had been injured or made ill by their work, yes.
- 20 MR. SCHACHTER: Your Honor, at this time we offer as
- 21 an expert witness in the fields of occupational medicine and
- 22 epidemiology Professor Garabrant.
- 23 MR. GEORGE: No objection, Your Honor.
- 24 | THE COURT: We'll admit him as such.
- 25 MR. SCHACHTER: Thank you.

- 1 BY MR. SCHACHTER:
- Q. We've learned about products and we started off with we
- 3 were going to learn about professions or occupations from you,
- 4 and I'd like to just get to the meat of the substance of your
- 5 opinion.
- 6 Have you prepared a graph that summarizes the research
- 7 that you've done for us in this case and the research that
- 8 you've done in other contexts that relate to professions?
- 9 A. That relate to various occupations and their mesothelioma
- 10 risks, yes.
- 11 Q. And is there a summary chart that shows that?
- 12 A. Yes, there is.
- 13 Q. Would you be able to explain that chart to us if I
- 14 invited you to come down and --
- 15 A. Yes.
- 16 | Q. -- if I put it up.
- There's a microphone, I believe, that they'll hand you.
- 18 (Witness stepped down from the witness stand.)
- 19 Q. Doctor, if you would, please, what is this chart and how
- 20 do we read it? We're going to go through all the details of
- 21 | the terminology, but give us enough so we can understand the
- 22 general picture here, please.
- 23 A. Okay. Maybe I better stand over here.
- 24 What I have done is I have summarized the risk ratios for
- 25 mesothelioma in a long list of occupations. And so the

occupations are listed along the left side of the chart and then the relative risks of mesothelioma are shown graphically towards the right, and then the numbers corresponding to the graph representations are at the far right.

First off, let me say a word about risk ratios. The idea behind risk ratio is calculating the risk of mesothelioma in the specific occupation compared to the risk of mesothelioma in people who do not hold that occupation. And this is done by pulling together all of the published studies in the world's literature that have reported the mesothelioma risks in each of these occupations. So this involves, I don't know, 150 or so different studies that have reported out the mesothelioma risks.

All right. Each of these horizontal lines with a dot in the middle, the dot represents the relative risk and the horizontal line represents the 95 percent confidence interval around that risk.

So if you start at the top and look at the relevant risk in insulators, which I've written as insulation removers and installers -- for some reason there's -- oh, you have that. Thank you.

- Q. Will this help you?
- 23 A. Yes.

All right. So the relative risk of mesothelioma in insulators is about ten fold. That's a very high risk and the

95 percent confidence interval goes from 6.3 to 16.3.

And carpenters in Great Britain and Australia have about a seven fold risk and the confidence level goes from about 3 to 16.

- Q. Please allow me to interrupt you. What is this red line with the one under it? What does that mean? What's that level?
- A. Okay. A relative risk of one means that there is no association between working in that occupation and risk of mesothelioma. So in other words, the risk is the same as the background risk. So this is -- this is our indicator that there is no association at all between working in that job and risk of mesothelioma.
- Q. So why is this helpful to us, this chart, in understanding the risk of working with asbestos-containing compressed asbestos sheet gaskets that Garlock --
- A. Well, what this graph illustrates is that the occupations that are at significantly increased risk of mesothelioma are principally the ones in which there is exposure to thermal insulation. So that's insulators, shipyard workers, plumbers and pipefitters, boilermakers, sheet metal workers, electricians, furnace operators, and so on.

And when I say that they're at significant increased risk, we know that because the confidence interval does not include one. So if the entire confidence interval is above

one, that says it's a statistically significant association.

When we get down to the bottom, there are a number of occupations that are not at increased risk of mesothelioma.

They include teachers where the relative risk is .87, and the confidence interval overlaps one. So that's not significantly

6 different than one. Sorry, teachers are .91. I can't read at this angle.

8 Vehicle mechanics, .87. The confidence interval goes 9 from .66 to 1.15.

And office workers and clerical workers, same risks as vehicle mechanics at .87.

- Q. Now, you mentioned increased risk. We heard this morning that all cases of asbestos -- of mesothelioma are caused by asbestos. Is that true?
- 15 A. No.

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- Q. Okay. Does it occur in the just general population like any other cancer, cancer that just occurs?
- A. There is a background rate of mesothelioma in all populations. And that means that mesothelioma occurs in all populations even in the absence of asbestos exposure, yes.
- Q. Now, back to this graph. Is there any occupation here
  that is particularly informative for the issue we're
  addressing here of compressed asbestos sheet gaskets and
  packing?
- 25 A. Yes.

- Q. What is that occupation?
- 2 A. Well, vehicle mechanics are of particular importance.
- 3 Q. Why?

- 4 A. Because vehicle mechanics handle brakes, clutches, and
- 5 gaskets and traditionally those products have been made with
- 6 chrysotile asbestos. And what this slide points out is that
- 7 in spite of doing brake repairs, clutch repairs, and gasket
- 8 replacements on motor vehicles, there is no evidence of
- 9 increased risk of mesothelioma in that occupation.
- 10 Q. What are the levels of exposure? How do they -- I'm
- 11 sorry, you're not an industrial hygienist. I won't ask you
- 12 about levels of exposure.
- 13 Has the fact that people who work with gaskets in this
- 14 context, vehicle mechanics, been the subject of peer reviewed
- 15 recent literature explaining that there is no risk of
- 16 mesothelioma from such work?
- 17 A. Well, the results I've put up here represent a summary of
- 18 | literature from about 17 different epidemiologic studies, and
- 19 we'll get into those in detail. But this represents a large
- 20 body of research published in the peer reviewed literature
- 21 that has looked to see whether vehicle mechanics are at
- 22 increased risk of mesothelioma.
- 23 Q. And in particular, has that been articulated in the
- 24 studies and most recently in a study by Rake and Peto in 2009?
- 25 A. Yes.

- Q. What is that study and what do they say on the subject?
- 2 A. This study done by Christina Rake and Julian Peto came
- 3 | out four years ago now. It's a case control study. I can't
- 4 quite read it from here. Occupational, domestic and
- 5 | environmental mesothelioma risk in the British population, a
- 6 case control study.

- 7 What they did in part was to assemble a large number of
- 8 cases of mesothelioma, people who had that disease, and a
- 9 | random sample of the population of the United -- or Britain
- 10 | that did not have mesothelioma and they asked them about their
- 11 past asbestos exposures at each job. They asked specifically
- 12 about work with asbestos insulation board, lighting, spray
- 13 coatings, cement, insulation, heat protection materials,
- 14 gaskets, textiles, and brake linings. And then for each job,
- 15 | the duration, description, and occupational code were
- 16 recorded, with the frequency of direct and bystander asbestos
- 17 exposure.
- 18 Q. And what was their conclusion that they reached about
- 19 that?
- 20 A. They found that there was no increased risk of
- 21 | mesothelioma associated with work as a vehicle mechanic -- or
- 22 | I should say it properly. They found a number of exposures at
- 23 work were not associated with increased -- significantly
- 24 increased risk. These included vehicle mechanics involving
- 25 work with brakes or gaskets. The measure of association was

- an odds ratio of 0.4 and the 95 percent confidence interval
- 2 went from .1 to 1.7. So there was, in fact, a less than one
- 3 association that was not significantly different from one.
- 4 0. Who are these researchers?
- 5 A. Julian Peto is quite famous. He is a world-renowned
- 6 statistician. In fact, he is one of the earliest creators of
- 7 | the model that shows the relationship between asbestos
- 8 exposure and mesothelioma risk that rises over time with about
- 9 the third or fourth power of elapsed time since exposure.
- 10 | Q. Where do they live and who funds this research?
- 11 A. I believe he's at Imperial College. I believe for a long
- 12 time he was at Oxford University. This was funded by, I
- 13 believe, the Health and Safety Executive in the United Kingdom
- 14 | which I -- I'm not sure what it's equivalent to in the United
- 15 States. I think it's like the International Institute of
- 16 Health.
- 17 Q. Even if they didn't directly cement on gaskets for
- 18 vehicle mechanics, would this study still be relevant to the
- 19 issue we're dealing with here of compressed asbestos sheet
- 20 gaskets? Would these studies of vehicle mechanics still be
- 21 relevant?
- 22 A. I'm not sure I understand. Your question was even if
- 23 | they didn't say the word gasket, would it be relevant?
- 24 Q. Even if we were just looking at vehicle mechanics and
- assume they weren't using gaskets, would those studies still

- be relevant to our issue here?
- 2 A. Well, I think the importance of studying vehicle
- 3 | mechanics derives principally from this is an occupation where
- 4 people handle brakes and clutches which are incapsulated
- 5 | asbestos-containing materials. They're chrysotile asbestos
- 6 and it is one of the few, perhaps the only occupation in which
- 7 there is exposure to chrysotile asbestos but not commercial
- 8 amphibole asbestos.

- 9 Q. And what happens in that population epidemiologically?
- 10 Is there an increased risk of mesothelioma?
- 11 A. If you go back to my previous slide that summarizes the
- world's literature on that, the answer is no, there is no
- 13 | association at all.
- 14 Q. Dr. Garabrant, you've submitted a report in this case; is
- 15 that correct?
- 16 A. Yes.
- 17 Q. And it's dealt with a number of subjects. You've gone
- 18 | through the literature in great detail and you've dealt with a
- 19 | number of subjects. Because of time, we're not going to be
- able to deal with all of those. But tomorrow when we start
- 21 | afresh, will you be able to help us understand the details of
- 22 the terminology used by epidemiology that is going to be cited
- 23 by the court?
- 24 A. Yes.
- 25 | Q. Will you be able to help the court understand in detail

- what the vehicle mechanics studies show and why they're
- 2 relevant?
- 3 | A. Yes.
- 4 | Q. And will you be able to elucidate some other
- 5 methodological issues related to the issues that we're
- 6 addressing here in court?
- 7 A. I think so, yes.
- 8 MR. SCHACHTER: Your Honor, I think this would be a
- 9 convenient place to stop. I do have an issue on his report.
- 10 We have submitted his report along with the report of all
- 11 experts in this case pursuant to our Daubert motions
- 12 | challenging the scientific reliability of expert opinions
- 13 offered by committee experts. We believe that that report is
- 14 | in the record already, but at this time I would like to make
- 15 sure that we have tendered that report. And we can provide
- 16 | the court a copy of that report if you need an additional
- 17 copy.
- 18 MR. GEORGE: Your Honor, we would object to the
- 19 admission of the report into evidence. It's hearsay. Classic
- 20 hearsay.
- 21 MR. SCHACHTER: Under Rule 104 for preliminary
- 22 determinations, which is what a Daubert ruling is, it is
- 23 precisely the kind of information, especially when we have the
- 24 | time pressures here where we can't go through each of these
- 25 reports in detail.

1 THE COURT: We'll accept it for that purpose and go on and hear the rest of his testimony tomorrow. 2 3 MR. SCHACHTER: Thank you. THE COURT: All right. MR. FINCH: One housekeeping matter. Can we just get a firm list of who they're going to call tomorrow? I 6 7 don't want to get short hopped because they've got -- we have their basic order, but if they pull some people, you know, we 8 need to have the right boxes of stuff. 9 10 MR. HARRIS: We plan on calling Larry Liukonen -does this need to be on the record? 11 12 THE COURT: No, we can go off the record. 13 (Off-the-record discussion.) 14 THE COURT: All right. I think you can leave what stuff you want to leave here. It will be locked up. But 15 16 otherwise, I guess we'll see you at 8:30 in the morning for 17 whatever arguments you want to make and then 9:30 to start the 18 evidence. Thank you. 19 (Evening recess at 5:16 p.m.) \*\*\*\* 2.0 21 22 23 24 25

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       2 WESTERN DISTRICT OF NORTH CAROLINA
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                    I certify that the foregoing transcript is a true
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       6 and correct transcript from the record of proceedings in the
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       7 above-entitled matter.
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